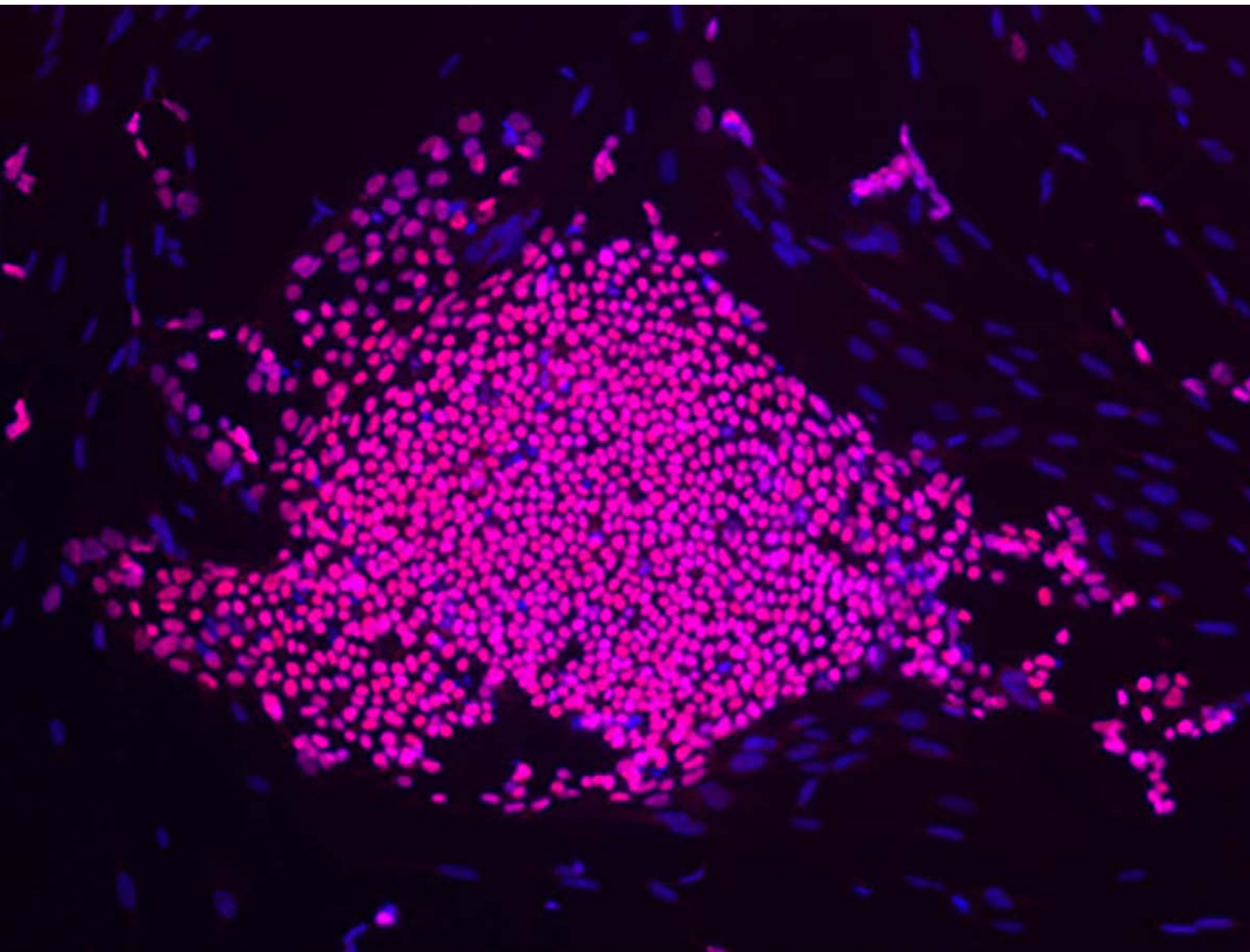


ANTIBODIES FOR STEM CELL RESEARCH

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Front Cover:

Confocal immunofluorescent analysis of human embryonic stem cells with OCT4 antibody (11263-1-AP) at a dilution of 1:100. The MERGE is the merge of PE and DAPI.

WELCOME

Foreword

Stem cell research is active in many of the disciplines making up life sciences and medicine; not unexpected given that the cell types at the heart of stem cell research include those that form us and control our development. Even after birth certain stem cell populations remain, replenishing our bodies with new generations of cells. The study of such cells, referred to as adult stem cells, helps us to understand the many processes involved in health, aging and disease. Within the latter subject alone, stem cells form the basis of intensive research and controversy surrounding the origins of cancers. The concept of the cancer stem cell has gained momentum as a theory, and continues to be explored.

The reach of stem cell research has been extended further still with the emergence of induced pluripotency technologies. From the origins of life and disease, induced pluripotent stem cells (iPSCs) have taken the field into the domain of treatments and therapeutics. Once considered as bound to the realms of science fiction, tissue regeneration is now a possibility – offering hope for currently untreatable conditions such as motor neuron disease and paralysis. Among other uses, iPSCs also offer methods of testing new drugs in humanized settings and for understanding the patient-specific basis of a disease.

Proteintech® is pleased to offer the stem cell research community hundreds of pre-validated antibodies for their investigations. If you can't find the antibody that you're looking for from the hundreds included in these pages, please visit www.ptglab.com to search its catalog of over 10,000 targets covered.

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THE BENCHMARK IN ANTIBODIES

Since the day it was founded, Proteintech has been making all of its products to the highest standards possible whilst taking complete responsibility for the quality of each product.

- Proteintech makes every single antibody in its 12,000+ catalog.
- Each Proteintech product is unique and cannot be bought under a different label.
- Antibodies are tested with siRNA treated samples to demonstrate specificity.
- It works in every single species and application or get a full money-back refund.

Proteintech has over 12,000 antibodies in its extensive catalog, all fully validated and available for next day delivery.



FOCUS ANTIBODIES

Focus On Lamin A/C

Focus Antibody
Lamin A/C

Catalog Number
10298-1-AP

Type
Rabbit Polyclonal

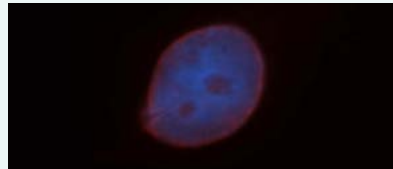
Applications
ELISA, FC, IF, IHC, IP, WB

16 Publications

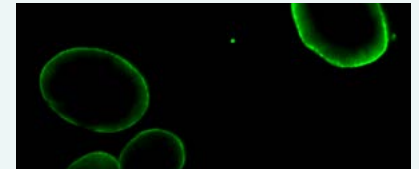
Lamin A/C is encoded by the LMNA gene which is significant in several diseases of the muscular and nervous systems such as Emery-Dreifuss muscular dystrophy (EDMD), limb girdle muscular dystrophy (LGMD) and Charcot-Marie-Tooth disease (CMT). These diseases are largely characterized by progressive muscle wasting and weakening, contractures of certain joints – such as the elbows and knees in EDMD and arch of the foot in CMT – and, in the case of EDMD and LGMD, heart problems. It also plays a role in other diseases such as familial partial lipodystrophy – a skin condition characterized by the loss of subcutaneous fat; dilated cardiomyopathy – a condition in which the heart becomes enlarged and weakened; and Hutchinson-Gilford progeria syndrome – the onset of aging-like processes in infancy. Considering the diversity of these diseases, it is intriguing how one protein might be linked to the etiology of them all: how does lamin A/C play a role in such varied and different diseases?

Lamin A/C's role in nuclear integrity provides the answer; it is an integral component of the nuclear lamina, a dense fibrillar network structure underlying the nuclear envelope playing an important role in the structural integrity of the nucleus and its traffic control. Lamin A/C also has a role in important cellular processes such as DNA replication and cell division. It is thought that aberrant expression of Lamin A/C causes the prior mentioned degenerative diseases by producing irregularities in nuclear shape and chromatin organization and generating perinuclear and intranuclear vacuoles. Such abnormalities are seen in the affected cells of individuals with these conditions.

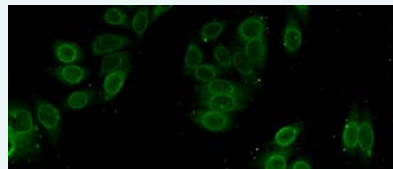
Proteintech's Lamin A/C antibody has previously featured in two papers separately concerning premature aging (PMID: 19264120) and hepatitis B infection (PMID: 20529248).



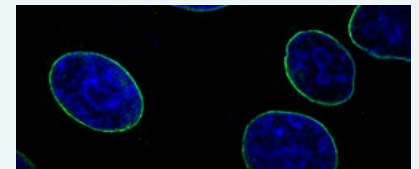
Immunofluorescent analysis of HepG2 cells, using LMNA antibody (10298-1-AP) at a 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Lamin A/C antibody (10298-1-AP) at a dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).



Immunofluorescent analysis of HepG2 cells, using Lamin A/C antibody (10298-1-AP) at a dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Lamin A/C antibody (10298-1-AP) at a dilution of 1:200 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

LIN28 Antibody In Stem Cell & Cancer Research

Focus Antibody
LIN28

Catalog Number
11724-1-AP

Type
Rabbit Polyclonal

Applications
ELISA, IF, IHC, IP, WB

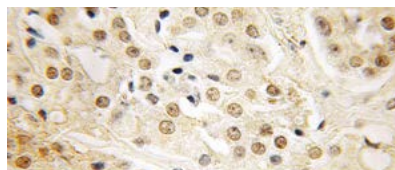
28 Publications

KD/KO Validated

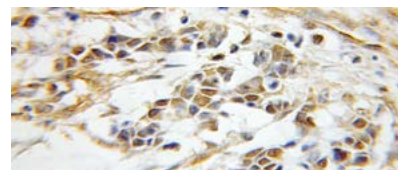
LIN28 is an RNA binding protein involved in the maintenance of embryonic stem cell (ESC) pluripotency. It is also one of several reprogramming factors that allow the derivation of induced pluripotent stem cells (iPSCs) from somatic sources, a technique that offers potential ways to bypass the need for embryonic stem cells (ESCs) in stem cell research.

Our LIN28 antibody has been used by Viswanathan and colleagues at Harvard Medical School, a group who have published several key papers regarding LIN28 in recent years. Last year in Nature Genetics they published their finding that LIN28 promotes transformation and is associated with advanced human malignancies. In a subsequent Nature paper they reported a role for LIN28 in primordial germ-cell development and in germ-cell malignancy. In both papers our LIN28 antibody was used for immunohistochemistry

In support of this work, a recent Human Pathology paper by Cao et al. (2011) studied 103 primary and 81 metastatic testicular germ cell tumors. Using formalin-fixed, paraffin embedded tissue from these samples, IHC was carried with our LIN28 antibody; to see how specific this staining was, the authors also looked at LIN28 staining in IHC samples from 327 non-germ cell tumors. They also compared LIN28 staining with SALL4 (Sal-like 4) and OCT4 (octamer-binding transcription factor 4) in all germ-cell tumors. Cao and colleagues found that in most of the germ cell tumors, strong LIN28 signal was seen, whereas only 10 of the 327 non-germ cell tumor samples showed weak LIN28 staining at best. The paper concluded that LIN28 is a highly sensitive marker for testicular germ-cell neoplasias with relatively high specificity. Whilst having a similar level of diagnostic utility as SALL4, LIN28 had a major advantage over OCT4 in diagnosing yolk sac tumors (a type of germ cell carcinoma).



Immunohistochemical of paraffin-embedded human prostate cancer using LIN28 antibody (11724-1-AP) at a dilution of 1:50 (40x objective).



Immunohistochemical of paraffin-embedded human colon cancer using OCT4 antibody (11263-1-AP) at a dilution of 1:50 (10x objective).

Related Antibodies

Antibody Name	Catalog Number	Type	Applications
LIN28	3 60024-1-Ig	Mouse Mono	Antibody neutralization, ELISA, IHC, WB
LIN28A-Specific	2 16177-1-AP	Rabbit Poly	ELISA, IHC, WB
OCT4	18 11263-1-AP	Rabbit Poly	ELISA, IF, IHC, WB

00 This number shows the amount of times our antibody has been cited in a publication.

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BRD7 Antibody In Stem Cell Gene Activation & Repression Study

Focus Antibody
BRD7

Catalog Number
51009-2-AP

Type
Rabbit Polyclonal

Applications
ChIP, CoIP, ELISA, IF, IHC, WB

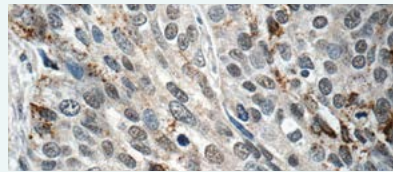
8 Publications

KD/KO Validated

Our bromodomain containing protein 7 (BRD7) antibody was used by Kaeser and colleagues (Kaeser et al. Journal of Biological Chemistry, 2008) to identify PBAF (Polybromo-associated BRG1 associated factor)-specific BRD7 as a novel component of the SWI/SNF complex. The original research aims of the paper were to investigate the different compositional aspects of this complex in embryonic stem cells (ESCs); its diverse nature and the requirement for some but not all of its subunits, particularly in ESCs, was something that intrigued the authors. SWI/SNF has the potential to both repress or activate certain genes depending on its subunit composition; for example, Incorporation of distinct, mutually exclusive paralogues of the ARID (AT-rich interactive domain) 1 protein into

SWI/SNF complexes determines whether the complex functions as a corepressor (ARID1A) or coactivator (ARID1B) of cell cycle control genes.

Among the several main observations of the paper was the identification of BRD7 as a new PBAF-specific subunit. The authors found that BRD7 was present in purifications from pluripotent ESCs, differentiated ESCs and HeLa cells; implying its presence in a variety of cell types. Using an RNAi-based approach for BRD7 and ARID1A, the authors showed that both kinds of SWI/SNF complexes played important roles in gene-specific regulation and activation, adding new insights into how the composition of SWI/SNF complexes impose transcriptional regulation on individual target genes.



Immunohistochemistry of paraffin-embedded human cervical cancer tissue slide using BRD7 antibody (51009-2-AP) at a dilution of 1:50 (40x objective).

Related Antibodies

Antibody Name	Catalog Number	Type	Applications
ARIDIA	18825-1-AP	Rabbit Poly	ELISA, IF, WB

MAGOH Regulates Neural Stem Cell Development & Is Linked To Microcephaly

Focus Antibody
MAGOH

Catalog Number
12347-1-AP

Type
Rabbit Polyclonal

Applications
ELISA, IHC, IP, WB

4 Publications

Our MAGOH antibody has helped shed light on neural development and the disease mechanism behind microcephaly. It was used for immunohistochemical analysis of *Mos2* (modifier of *Sox10*)^{+/-} mice in a Nature Neuroscience paper published last year. The authors, Silver et al., had previously identified the *Mos2*^{+/-} mutant mouse as a microcephaly model as it phenotypically displayed characteristics of the congenital disorder: small body size, hypopigmentation and a reduced brain size. In the work carried out for the Nature Neuroscience paper, Silver and colleagues had found this mutant carried a single base deletion in the *Magoh* gene. They also found that mice homozygous for the *Magoh* loss-of-function mutation died prenatally, whereas those heterozygous for the mutation showed aberrant cortical layering and a reduction in neurons when compared with wild-type mice. On closer inspection, the dividing cells in the *Magoh*

mutants had altered mitotic spindle orientations and abnormal chromosome number. The authors noted that this phenotype was similar to that of *Lis1* mutant mice; the *Lis1* gene encodes a microtubule-associated protein, critical for mitotic spindle integrity, and has been previously associated with microcephaly in humans.

Interestingly, Silver and coworkers found that *Lis1* was depleted in the *Magoh* mutant cortex and were able to rescue the *Magoh* microcephaly phenotype with *Lis1* expression. The *Magoh* gene, which is completely conserved between mice and humans, encodes for a component of the RNA-binding exon junction complex (EJC), which plays a crucial role in the post-translational regulation of mRNA. This data links the EJC with neural development and the development of microcephaly.



Immunohistochemical of paraffin-embedded human ovary tumor using MAGOH antibody (12347-1-AP) at a dilution of 1:50 (10x objective).

ANTIBODY PRODUCT LIST

Antibody Name	Cat. No.	Type	Applications
ACP5	11594-1-AP	Rabbit Poly	ELISA, IHC
Aggrecan	4 13880-1-AP	Rabbit Poly	ELISA, IHC, WB
ALPL	10 11187-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
Annexin VI	12542-1-AP	Rabbit Poly	ELISA, IHC, WB
B4GALNT1	13396-1-AP	Rabbit Poly	ELISA, WB
BCAS3	10402-1-AP	Rabbit Poly	ELISA, WB
BCRP/ABCG2	2 10051-1-AP	Rabbit Poly	ELISA, IHC, WB
beta Tubulin	22 10094-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
beta Tubulin	14 10068-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
BMI1	4 10832-1-AP	Rabbit Poly	ChIP, CoIP, ELISA, WB, IHC, IF
BMI1	66161-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
BMPR1A	2 12702-1-AP	Rabbit Poly	ELISA, IF, WB
BMPR2	14376-1-AP	Rabbit Poly	ELISA, IP, WB
BMPR2	19087-1-AP	Rabbit Poly	ELISA, WB
BVES	12920-1-AP	Rabbit Poly	ELISA, IHC, WB
CA2	2 16961-1-AP	Rabbit Poly	ELISA, WB
Calponin	3 13938-1-AP	Rabbit Poly	ELISA, IHC, WB
Calponin	24855-1-AP	Rabbit Poly	ELISA, IHC, WB
CAMSAP1L1	9 17880-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
Cardiac Troponin T	4 15513-1-AP	Rabbit Poly	ELISA, IHC, WB
CD10,MME	23782-1-AP	Rabbit Poly	ELISA, FC, IHC
CD13	14553-1-AP	Rabbit Poly	ELISA, IHC, WB
CD133	14 18470-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
CD133	18495-1-AP	Rabbit Poly	ELISA, WB
CD133-1,2,3	19946-1-AP	Rabbit Poly	ELISA, WB
CD133-1,2,3,5,7	19945-1-AP	Rabbit Poly	ELISA, WB

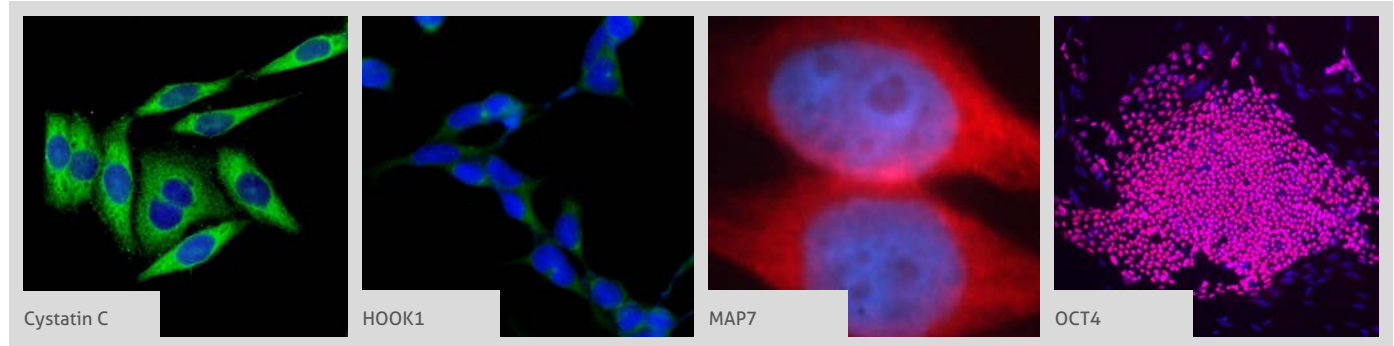
Antibody Name	Cat. No.	Type	Applications
CD146/MCAM	3 17564-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
CD146/MCAM	66153-1-Ig	Mouse Mono	ELISA, FC, IHC, WB
CD151	10418-1-AP	Rabbit Poly	ELISA, WB
CD31	13 11265-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
CD31	2 66065-1-Ig	Mouse Mono	ELISA, WB
CD34	4 14486-1-AP	Rabbit Poly	ELISA, IHC, WB
CD38	25284-1-AP	Rabbit Poly	ELISA, IHC, WB
CD44	19 15675-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
CD44	60224-1-Ig	Mouse Mono	ELISA, FC, IF, IHC, WB
CD59	10742-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
CD93	18283-1-AP	Rabbit Poly	ELISA, IHC
CDCP1	12754-1-AP	Rabbit Poly	ELISA, WB
CEA	10421-1-AP	Rabbit Poly	ELISA, IHC
CEACAM21	17209-1-AP	Rabbit Poly	ELISA, IF, WB
CHOP	27 15204-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
CHOP; GADD153	60304-1-Ig	Mouse Mono	ELISA, WB
c-Kit/CD117	18696-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
c-Kit/CD117	65042-1-Ig	Mouse Mono	ELISA, IHC
Claudin 11	12152-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
CLEC2D	13188-1-AP	Rabbit Poly	ELISA, WB
c-Myc	6 10057-1-AP	Rabbit Poly	ELISA, WB
c-MYC	22 10828-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
CNN3	11509-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Collagen Type I	28 14695-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Collagen Type II	15943-1-AP	Rabbit Poly	ELISA, IHC, WB
Collagen Type III	16 13548-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB

Collagen Type III
 → leptin

Antibody Name	Cat. No.	Type	Applications
Collagen Type III	22734-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
COP58	10089-2-AP	Rabbit Poly	ELISA, IHC, WB
CRTAC1	13001-1-AP	Rabbit Poly	ELISA, WB
CXCR4	3 60042-1-Ig	Mouse Mono	ELISA, FC, WB
CXCR4	2 11073-2-AP	Rabbit Poly	ELISA, IP, WB
Cystatin C	2 12245-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Cytokeratin 19	20 10712-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
Cytokeratin 19	2 14965-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Cytokeratin 19	60187-1-Ig	Mouse Mono	ELISA, IHC, WB
Cytokeratin 19-specific	2 16858-1-AP	Rabbit Poly	ELISA, IHC, WB
DACH1	20 10914-1-AP	Rabbit Poly	ChIP, ELISA, IF, IHC, IP, WB
DAZL	12633-1-AP	Rabbit Poly	ELISA, WB
DDX3	11115-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
DDX3Y	14041-1-AP	Rabbit Poly	ELISA, IF, IHC
Decorin	14667-1-AP	Rabbit Poly	ELISA, IHC, WB
Desmin	2 60226-1-Ig	Mouse Mono	ELISA, IHC, WB
Desmin	4 16520-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
Desmin	22205-1-AP	Rabbit Poly	ELISA, IHC, WB
DLK1	9 10636-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
DLX5	2 10592-1-AP	Rabbit Poly	ELISA, IHC, WB
DMD	12715-1-AP	Rabbit Poly	ELISA, IF, WB
DNAJB3	4 17177-1-AP	Rabbit Poly	ELISA, IHC, WB
DPPA2	12689-1-AP	Rabbit Poly	ELISA, WB
DPPA4	17045-1-AP	Rabbit Poly	ELISA, WB
DZIP1	13779-1-AP	Rabbit Poly	ELISA, WB
EHMT2/G9a	11595-1-AP	Rabbit Poly	ELISA, WB
ELAVL4	13032-1-AP	Rabbit Poly	ELISA, IHC, WB
EME1	12975-1-AP	Rabbit Poly	ELISA, WB
Endoglin/CD105	3 10862-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
ETV5	2 13011-1-AP	Rabbit Poly	ELISA, WB
FABP3	2 10676-1-AP	Rabbit Poly	ELISA, IHC, WB
FABP3	60280-1-Ig	Mouse Mono	ELISA, WB
FABP4	8 12802-1-AP	Rabbit Poly	ELISA, IHC, WB
FABP4	3 15872-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
FABP7	17456-1-AP	Rabbit Poly	ELISA, WB
FABP7	51010-1-AP	Rabbit Poly	ELISA, IHC, WB
FABP7-Specific	14836-1-AP	Rabbit Poly	ELISA, IHC, WB
FAM65B	3 17015-1-AP	Rabbit Poly	ELISA, WB
FATP4	11013-1-AP	Rabbit Poly	ELISA, IHC, IP, WB

Antibody Name	Cat. No.	Type	Applications
FBX15	13024-1-AP	Rabbit Poly	ELISA, WB
FBXO32	12866-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
FGFR1	60325-1-Ig	Mouse Mono	ELISA, WB
FGFR2	13042-1-AP	Rabbit Poly	ELISA, IF, WB
FGFR4	11098-1-AP	Rabbit Poly	ELISA, IHC, WB
Fibromodulin	13281-1-AP	Rabbit Poly	ELISA, WB
Fibronectin	9 15613-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
Fibronectin	66042-1-Ig	Mouse Mono	ELISA, WB
FOXP1	22051-1-AP	Rabbit Poly	ELISA, WB
Frizzled 9	13865-1-AP	Rabbit Poly	ELISA, WB
GAD1	10408-1-AP	Rabbit Poly	ELISA
GATA1	2 60011-1-Ig	Mouse Mono	ELISA, IHC, WB
GATA1	10917-2-AP	Rabbit Poly	ELISA, IHC, WB
GATA2	2 11103-1-AP	Rabbit Poly	ELISA, IHC, IF, WB
GCNF	12712-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
GFAP	20 16825-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
GFAP	6 60190-1-Ig	Mouse Mono	ELISA, IHC, WB
GFAP	23935-1-AP	Rabbit Poly	ELISA, IHC, WB
GFI1	14198-1-AP	Rabbit Poly	ELISA, WB
GMF-beta	3 10690-1-AP	Rabbit Poly	ELISA, IHC, WB
GPT	16897-1-AP	Rabbit Poly	ELISA, WB
GREM2	2 13892-1-AP	Rabbit Poly	ELISA, IHC, WB
HESX1	17927-1-AP	Rabbit Poly	ELISA, IHC
HIRIP3	14992-1-AP	Rabbit Poly	ELISA, IHC, WB
HOOK1	2 10871-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
ICAM2	2 10121-2-AP	Rabbit Poly	ELISA, IHC, WB
ID1	4 18475-1-AP	Rabbit Poly	ELISA, IF, WB
IFITM3	29 11714-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
IFITM3	2 66081-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
IGFBP3	2 10189-2-AP	Rabbit Poly	ELISA, IF, IHC, WB
IL3RA	13655-1-AP	Rabbit Poly	ELISA, WB
Integrin beta-1	8 12594-1-AP	Rabbit Poly	ELISA, WB
JMJD6	16476-1-AP	Rabbit Poly	ELISA, IHC, WB
Kindlin 2	8 11453-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
KLF4	8 11880-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
KLF5	21017-1-AP	Rabbit Poly	ELISA, WB
Lamin A/C	16 10298-1-AP	Rabbit Poly	ELISA, IF, FC, IP, WB
LEFTY2	13991-1-AP	Rabbit Poly	ELISA, IHC, WB
leptin	17436-1-AP	Rabbit Poly	ELISA, IHC, WB

More validation images available on our website.



Antibody Name	Cat. No.	Type	Applications
LIN28	28	11724-1-AP Rabbit Poly	ELISA, IF, IHC, IP, WB
Lin28A-specific	2	16177-1-AP Rabbit Poly	ELISA, IHC, WB
Lin28B-specific	6	16178-1-AP Rabbit Poly	ELISA, IF, IHC, WB
LXN	13056-1-AP	Rabbit Poly	ELISA, IP, WB
MAGOH	4	12347-1-AP Rabbit Poly	ELISA, IHC, IP, WB
MAP2	16	17490-1-AP Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
MAP7	13446-1-AP	Rabbit Poly	ELISA, IF, IP, WB
MCL1	15	16225-1-AP Rabbit Poly	ELISA, IHC, IP, WB
MCL1	3	66026-1-Ig Mouse Mono	ELISA, IF, IHC, WB
MCL1L-specific	15825-1-AP	Rabbit Poly	ELISA, IHC
MEF2C	15	10056-1-AP Rabbit Poly	ELISA, IF, IHC, IP, WB
MEF2C	16953-1-AP	Rabbit Poly	ELISA, WB
MEF2C	18290-1-AP	Rabbit Poly	ELISA, IHC, WB
MEF2C	18291-1-AP	Rabbit Poly	ELISA, IHC, WB
MEF2C	20326-1-AP	Rabbit Poly	ELISA, IHC, WB
MEF2C-Specific	18293-1-AP	Rabbit Poly	ELISA, IHC
MEPE	18804-1-AP	Rabbit Poly	ELISA, WB
MEPE	23256-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
MESDC2	10958-1-AP	Rabbit Poly	ELISA, WB
MME,CD10	2	18008-1-AP Rabbit Poly	ELISA, FC, IHC, IP, WB
MME,CD10	10302-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
MME,CD10	23898-1-AP	Rabbit Poly	ELISA, FC, IF, WB
MOG	3	12690-1-AP Rabbit Poly	ELISA, Inhibition assay, WB
MSI2	2	10770-1-AP Rabbit Poly	ELISA, IHC, WB
MSY2	13538-1-AP	Rabbit Poly	ELISA, IHC, WB
MTF2	16208-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
MTM1	13924-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
MYCL1	14584-1-AP	Rabbit Poly	ELISA, WB
MYCN	3	10159-2-AP Rabbit Poly	ELISA, WB
Myelin basic protein	10458-1-AP	Rabbit Poly	ELISA, WB

Antibody Name	Cat. No.	Type	Applications
MYF6	11754-1-AP	Rabbit Poly	ELISA, WB
Myocilin	14238-1-AP	Rabbit Poly	ELISA, WB
MYOD1	3	18943-1-AP Rabbit Poly	ELISA, IF, IHC, WB
NANOG	4	14295-1-AP Rabbit Poly	ELISA, IF, IHC, IP, WB
NCAM1/CD56	5	14255-1-AP Rabbit Poly	ELISA, FC, IHC, WB
NCAM1/CD56	60238-1-Ig	Mouse Mono	ELISA, IHC, WB
NCAM2	13850-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
Nectin 2	10100-2-AP	Rabbit Poly	ELISA, WB
NEDD1	13993-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
NEUROD1	12081-1-AP	Rabbit Poly	ELISA, IHC, WB
NF-L	12998-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
NF-L	60189-1-Ig	Mouse Mono	ELISA, WB
NKX2-5	13921-1-AP	Rabbit Poly	ELISA, IHC, WB
Noggin	14772-1-AP	Rabbit Poly	ELISA, IHC, WB
Notch1	5	10062-2-AP Rabbit Poly	ELISA, WB
NT5E/CD73	12231-1-AP	Rabbit Poly	ELISA, WB
Nucleostemin	15060-1-AP	Rabbit Poly	ELISA, IP, WB
OCT1	3	10387-1-AP Rabbit Poly	ELISA, IHC, WB
OCT4	18	11263-1-AP Rabbit Poly	ELISA, IF, IHC, WB
OCT4	60242-1-Ig	Mouse Mono	ELISA, IHC, WB
OLFM1	10079-1-AP	Rabbit Poly	ELISA, IHC
OLIG2	3	13999-1-AP Rabbit Poly	ELISA, IF, IHC, IP, WB
Osteocalcin	23418-1-AP	Rabbit Poly	ELISA, IHC
p63	12143-1-AP	Rabbit Poly	ELISA, WB
PAX3	21386-1-AP	Rabbit Poly	ELISA, WB
PAX3	51036-2-AP	Rabbit Poly	ELISA, WB
PEG10	14412-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
PMFBP1	17061-1-AP	Rabbit Poly	ELISA, WB
PMP2	2	12717-1-AP Rabbit Poly	ELISA, IHC, WB
Podocalyxin	18150-1-AP	Rabbit Poly	ELISA, FC, IHC, WB
PODXL2	16383-1-AP	Rabbit Poly	ELISA, WB

00 This number shows the amount of times our antibody has been cited in a publication.

Wnt Signaling Pathway

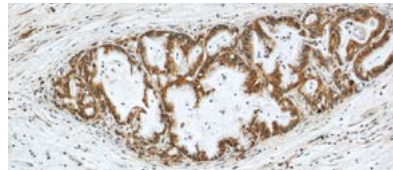
The Wnt signaling pathway is vital to both the developing and mature organism; conserved throughout the animal kingdom, it helps orchestrate the complex processes involved in building a living-being – be it nematode or human. The Wnt signaling network controls cell proliferation, stem cell maintenance and cell fate decisions, as well as organized cell movements and the establishment of tissue polarity. Its involvement in such a variety of important biological processes highlights the Wnt pathway's inherent complexity: large multi-gene families of ligands and receptors interact in an impressive amount of combinations, each eliciting a variety of intracellular responses.

The precise signaling output of Wnts depends on the repertoire of cell surface receptors present on recipient cells; for example, the Wnt-5a protein can act as an 'ON' or 'OFF' ligand: it can activate the formation of the β -catenin/T-cell factor (TCF) transcriptional complexes to modulate the transcription of Wnt responsive genes or it can inhibit this β -catenin-dependent pathway upon binding to the receptor tyrosine kinase ROR2.

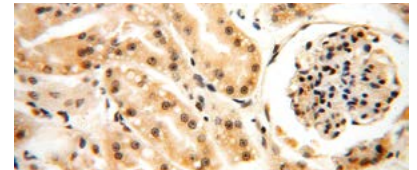
The β -catenin-dependent pathway is the best known of the Wnt pathway responses, yet, Wnt proteins are also thought to mediate

the activation of other intracellular messengers such as calcium fluxes, JNK and SRC kinases to name but a few. As well as the Wnt signalling pathway's role in health and development, it is also an underlying cause of many diseases. The hyperactivation of β -catenin signaling has been implicated as a driver of various cancers – in particular colon cancer – whereas its hypoactivity underlies certain neurodegenerative diseases and abnormal bone formation. Consequently, there is a great interest in inhibitors or activators of this pathway.

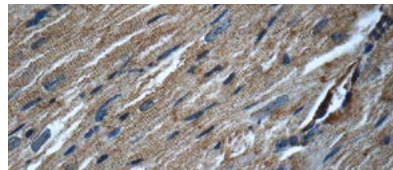
Related Antibodies



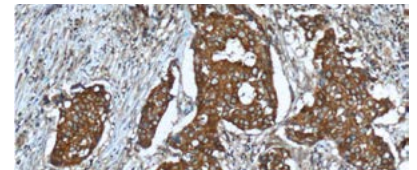
Immunohistochemical of paraffin-embedded human pancreas cancer using CMTM8 antibody (15039-1-AP) at a dilution of 1:50 (10x objective).



Immunohistochemical of paraffin-embedded human kidney using HDAC4 antibody (17449-1-AP) at a dilution of 1:100 (40x objective).



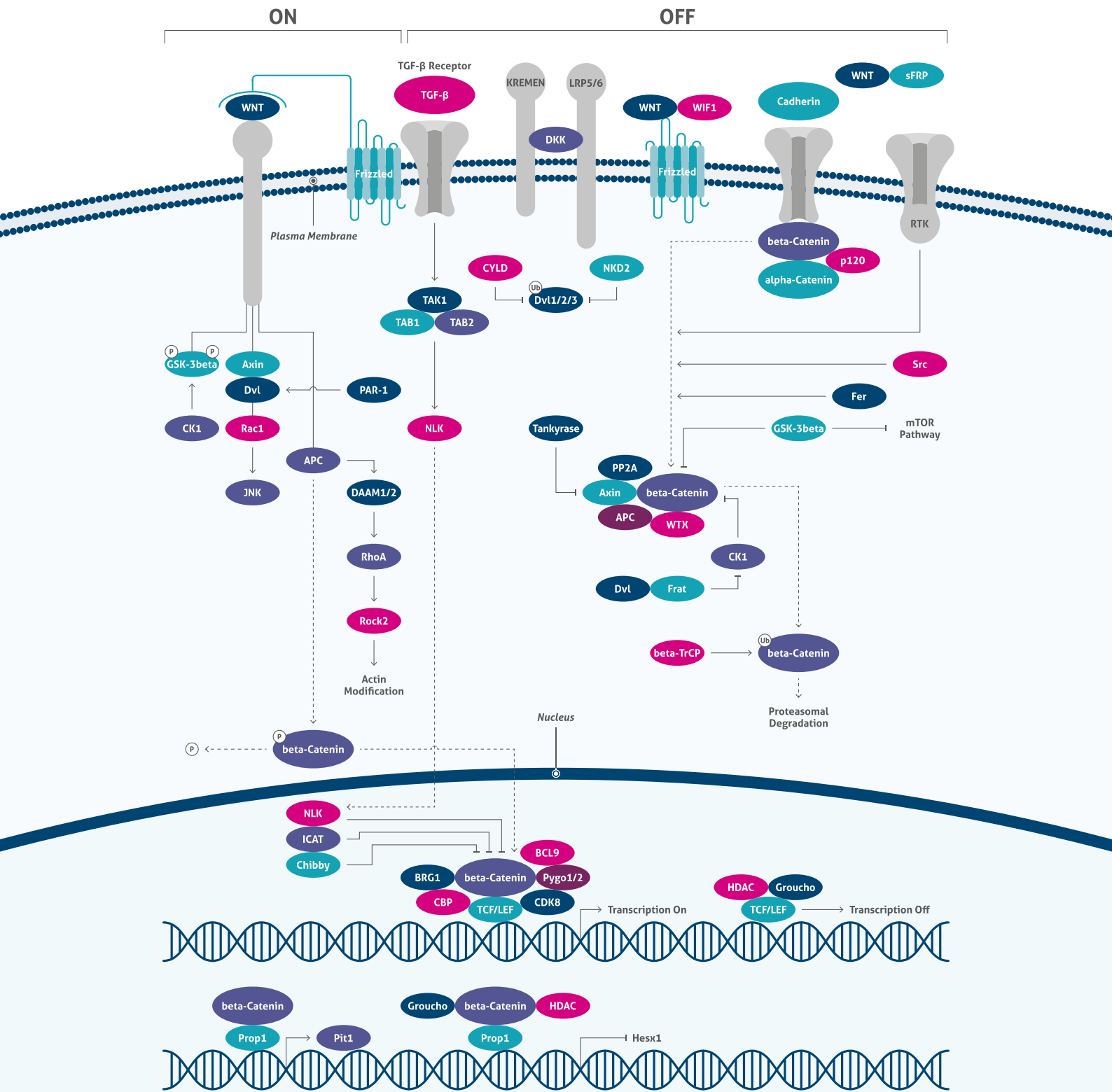
Immunohistochemistry of paraffin-embedded mouse heart tissue slide using JNK antibody (10023-1-AP) at a dilution of 1:50 (40x objective).



Immunohistochemistry of paraffin-embedded human breast cancer tissue slide using c-SRC (60315-1-Ig) antibody at a dilution of 1:200 (10x objective). Heat-mediated antigen retrieval with Tris-EDTA buffer (pH9).

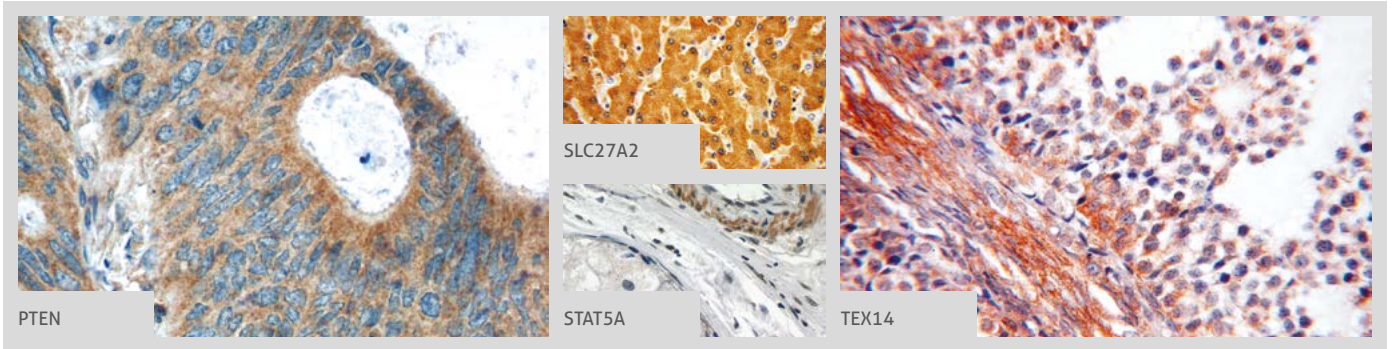
Legend

—	Association	—	Inhibits
—→	Directly Activates	Ⓟ	Phosphorylates
- - - - ->	Indirectly Activates	Ⓤ	Ubiquitin



PPAR gamma
→ WDR5

More validation images available on our website. 



Antibody Name	Cat. No.	Type	Applications
PPAR gamma	23 16643-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
PPAR gamma	22061-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
PPAR gamma	60127-1-Ig	Mouse Mono	ELISA, IHC, WB
PSCA	17171-1-AP	Rabbit Poly	ELISA, WB
PTEN	9 22034-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
PTEN	5 60300-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
PTHLH	10817-1-AP	Rabbit Poly	ELISA, WB
PUM2	11586-1-AP	Rabbit Poly	ELISA, WB
RBM15	9 10587-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
RBM15	2 66059-1-Ig	Mouse Mono	ELISA, IF, WB
REX1	13503-1-AP	Rabbit Poly	ELISA, IF
RING1	15037-1-AP	Rabbit Poly	ELISA, IHC, WB
ROBO3	11982-1-AP	Rabbit Poly	ELISA, IHC, WB
ROBO3-Specific	20220-1-AP	Rabbit Poly	ELISA, IHC, WB
RTN4R	11359-1-AP	Rabbit Poly	ELISA, IHC
S100B	3 15146-1-AP	Rabbit Poly	ELISA, IHC, WB
SFRP2	2 12189-1-AP	Rabbit Poly	ELISA, IHC, WB
SIPA1	12691-1-AP	Rabbit Poly	ELISA, WB
SIX2	75 11562-1-AP	Rabbit Poly	ChIP, ELISA, IF, IHC, IP, Pull-down, WB
SLAM/CD150	10949-2-AP	Rabbit Poly	ELISA, WB
SLC27A2	14048-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
SMAD2	14 12570-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
SNAI2	4 12129-1-AP	Rabbit Poly	ELISA, IHC, WB
SNX6	10114-1-AP	Rabbit Poly	ELISA, IHC, WB
SOX10	10422-1-AP	Rabbit Poly	ELISA
SOX15	25415-1-AP	Rabbit Poly	ELISA, WB
SOX2	12 11064-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
SOX2	4 20118-1-AP	Rabbit Poly	ELISA, WB
SPAG6	12462-1-AP	Rabbit Poly	ELISA, WB
SPAG8	13915-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
SPARC	7 15274-1-AP	Rabbit Poly	ELISA, IF, IHC, WB

Antibody Name	Cat. No.	Type	Applications
SPATA6	11849-1-AP	Rabbit Poly	ELISA, IHC, WB
SPRY2	11383-1-AP	Rabbit Poly	ELISA, IF, IHC, WB
Stanniocalcin 2	4 10314-1-AP	Rabbit Poly	ELISA, IHC, WB
Stanniocalcin 2	60063-1-Ig	Mouse Mono	ELISA, IF, IHC, WB
STAT3	11 10253-2-AP	Rabbit Poly	ChIP, ELISA, FC, IF, IHC, IP, WB
STAT3	2 51076-2-AP	Rabbit Poly	ELISA, IHC, IP, WB
STAT3	60199-1-Ig	Mouse Mono	ELISA, IF, IHC, IP, WB
STAT5A	13179-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
STAT5A	51074-2-AP	Rabbit Poly	ELISA, IHC, WB
STAT5B	12071-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
STAT5B	51072-2-AP	Rabbit Poly	ELISA, WB
TAGLN3	12246-1-AP	Rabbit Poly	ELISA, IHC, WB
TBX2	16930-1-AP	Rabbit Poly	ELISA, IHC, WB
TBX2	22346-1-AP	Rabbit Poly	ELISA, IF, WB
TBX3	2 16741-1-AP	Rabbit Poly	ELISA, WB
TBX5	13178-1-AP	Rabbit Poly	ELISA, WB
TBX6	12447-1-AP	Rabbit Poly	ELISA, WB
TCP11	14606-1-AP	Rabbit Poly	ELISA, WB
TEX14	18351-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
TLE3	4 11372-1-AP	Rabbit Poly	ChIP, ELISA, IF, IHC, IP, WB
TLE3	22094-1-AP	Rabbit Poly	ELISA, IF, IHC, IP, WB
TLE3	66083-1-Ig	Mouse Mono	ELISA, IHC, IP, WB
TNNT1	15893-1-AP	Rabbit Poly	ELISA, WB
TRAF4	10083-2-AP	Rabbit Poly	ELISA, IHC, WB
TRIM69	12951-1-AP	Rabbit Poly	ELISA, IHC, WB
VAV1	16364-1-AP	Rabbit Poly	ELISA, IHC, IP, WB
VCAM-1	10 11444-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, IP, WB
Vimentin	65 10366-1-AP	Rabbit Poly	ELISA, FC, IF, IHC, WB
Vimentin	22031-1-AP	Rabbit Poly	ELISA, WB
WDR5	15544-1-AP	Rabbit Poly	ELISA, IF, IHC, WB

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