abcam

Product datasheet

Anti-SPR antibody [EPR9290] ab157194

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-SPR antibody [EPR9290]
Description	Rabbit monoclonal [EPR9290] to SPR
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: A549, MCF7, HepG2 and HeLa (**ab150035**) cell lysates. IHC-P: Human thyroid gland carcinoma tissue. ICC/IF: HeLa cells. Flow Cyt (intra): MCF7 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20ºC.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR9290

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab157194 in the following tested applications.

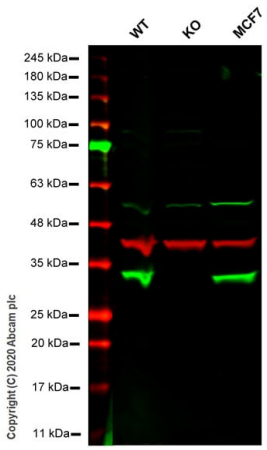
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/100 - 1/500. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★☆ (1)	1/1000 - 1/10000. Predicted molecular weight: 28 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.
IP		1/10 - 1/100.

Target

Function	Catalyzes the final one or two reductions in tetra-hydrobiopterin biosynthesis to form 5,6,7,8-tetrahydrobiopterin.
Involvement in disease	Defects in SPR are the cause of dystonia DOPA-responsive due to sepiapterin reductase deficiency (DRDSPRD) [MIM:612716]. In the majority of cases, patients manifest progressive psychomotor retardation, dystonia and spasticity. Cognitive anomalies are also often present. The disease is due to severe dopamine and serotonin deficiencies in the central nervous system caused by a defect in BH4 synthesis. Dystonia is defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures.
Sequence similarities	Belongs to the sepiapterin reductase family.
Post-translational modifications	In vitro phosphorylation of Ser-213 by CaMK2 does not change kinetic parameters.
Cellular localization	Cytoplasm.

Images



Western blot - Anti-SPR antibody [EPR9290] (ab157194)

All lanes : Anti-SPR antibody [EPR9290] (ab157194) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : SPR knockout HeLa cell lysate
Lane 3 : MCF7 cell lysate

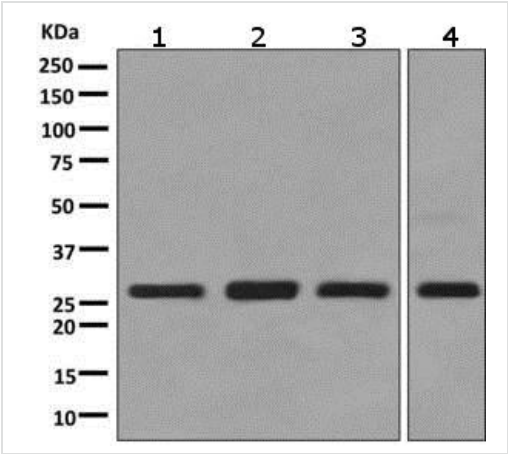
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 28 kDa
Observed band size: 26 kDa

Lanes 1-3: Merged signal (red and green). Green - ab157194 observed at 26 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab157194 Anti-SPR antibody [EPR9290] was shown to specifically react with SPR in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab264681** (knockout cell lysate **ab258700**) was used. Wild-type and SPR knockout samples were subjected to SDS-PAGE. ab157194 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-SPR antibody [EPR9290] (ab157194)

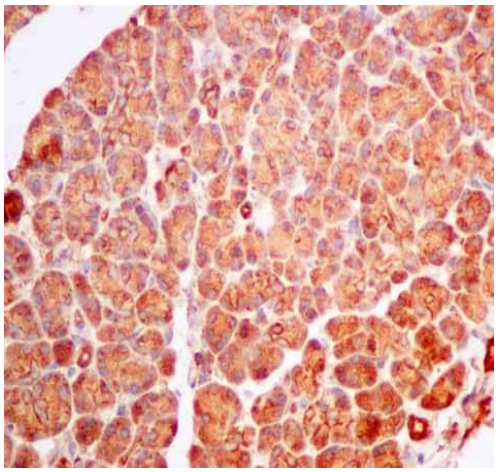
All lanes : Anti-SPR antibody [EPR9290] (ab157194) at 1/1000 dilution

Lane 1 : A549 cell lysate
Lane 2 : MCF7 cell lysate
Lane 3 : HepG2 cell lysate
Lane 4 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-rabbit HRP at 1/2000 dilution

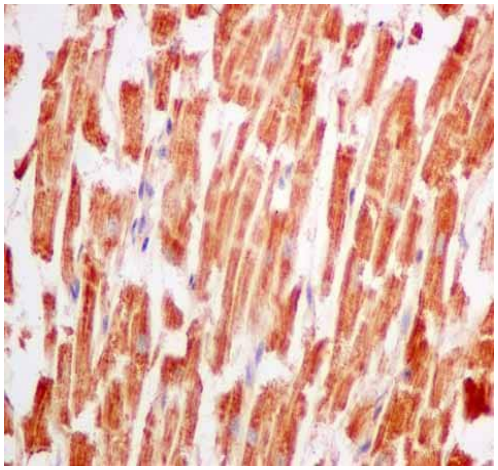
Predicted band size: 28 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPR antibody [EPR9290] (ab157194)

ab157194 showing +ve staining in Human normal pancreas.

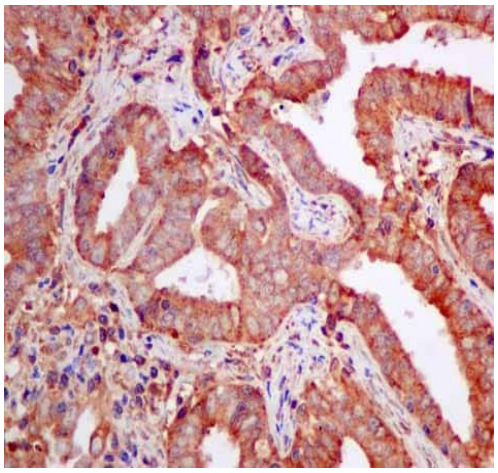
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPR antibody [EPR9290] (ab157194)

ab157194 showing +ve staining in Human heart.

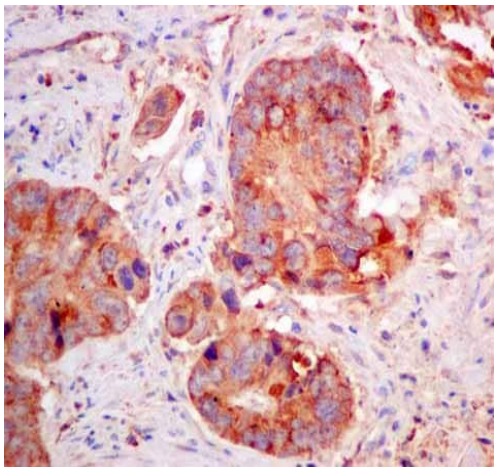
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPR antibody [EPR9290] (ab157194)

ab157194 showing +ve staining in Human endometrial carcinoma.

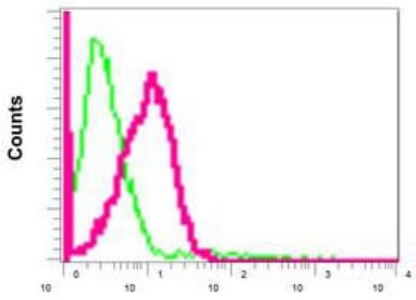
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPR antibody [EPR9290] (ab157194)

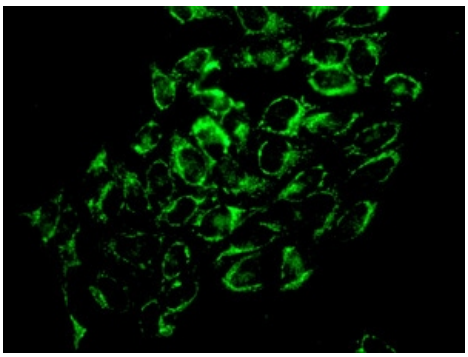
ab157194 showing +ve staining in Human colonic adenocarcinoma.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



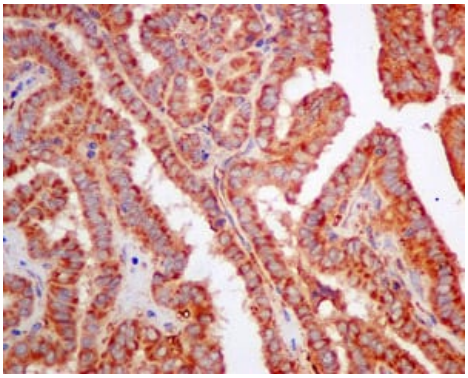
Flow Cytometry (Intracellular) - Anti-SPR antibody [EPR9290] (ab157194)

Intracellular Intracellular Flow Cytometic analysis of permeabilized MCF7 cells labeling TPST2 with ab157194 at 1/100 (red) or a rabbit IgG (negative) (green).



Immunocytochemistry/ Immunofluorescence - Anti-SPR antibody [EPR9290] (ab157194)

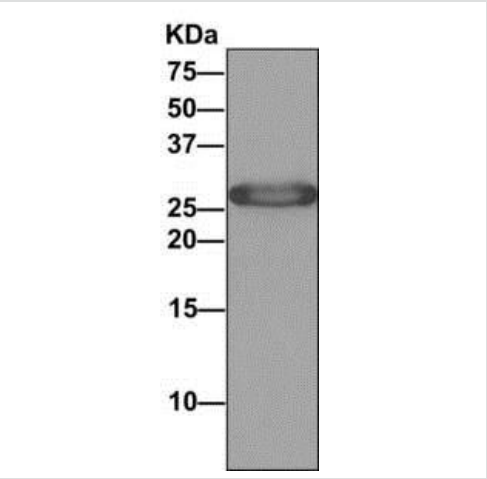
Immunofluorescent analysis of HeLa cells labeling TPST2 with ab157194 at 1/100 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SPR antibody [EPR9290] (ab157194)

Immunohistochemical analysis of paraffin-eEmbedded Human thyroid gland carcinoma tissue labeling TPST2 with ab157194 at 1/100 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-SPR antibody [EPR9290] (ab157194)

Detection of TPST2 by Western Blot of Immunprecipitate. MCF7 cell lysate immunoprecipitated using ab157194 at 1/10 dilution.

Anti-SPR antibody [EPR9290] (ab157194)

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