

Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] - BSA and Azide free ab236119

Recombinant RabMAb

6 Images

Overview

Product name	Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] - BSA and Azide free
Description	Rabbit monoclonal [EP12357] to Prostaglandin D Synthase (Lipocalin)/PDS - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF, WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as ab188544)
Positive control	WB:HepG2, SW480, and THP-1 whole cell lysate IHC-P: Human glioma ICC/IF: HepG2 cells
General notes	ab236119 is the carrier-free version of ab182141 .

Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

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](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP12357
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab236119 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
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 28 kDa (predicted molecular weight: 21 kDa). Can be blocked with <u>Prostaglandin D Synthase (Lipocalin)/PDS peptide (ab188544)</u> .

Target

Function	Catalyzes the conversion of PGH2 to PGD2, a prostaglandin involved in smooth muscle contraction/relaxation and a potent inhibitor of platelet aggregation. Involved in a variety of CNS functions, such as sedation, NREM sleep and PGE2-induced allodynia, and may have an anti-apoptotic role in oligodendrocytes. Binds small non-substrate lipophilic molecules, including biliverdin, bilirubin, retinal, retinoic acid and thyroid hormone, and may act as a scavenger for harmful hydrophobic molecules and as a secretory retinoid and thyroid hormone transporter. Possibly involved in development and maintenance of the blood-brain, blood-retina, blood-aqueous humor and blood-testis barrier. It is likely to play important roles in both maturation and maintenance of the central nervous system and male reproductive system.
Tissue specificity	Abundant in the brain and CNS, where it is expressed in tissues of the blood-brain barrier and secreted into the cerebro-spinal fluid. Abundantly expressed in the heart. In the male reproductive system, it is expressed in the testis, epididymis and prostate, and is secreted into the seminal fluid. Expressed in the eye and secreted into the aqueous humor. Lower levels detected in various

tissue fluids such as serum, normal urine, ascitic fluid and tear fluid. Also found in a number of other organs including ovary, fimbriae of the fallopian tubes, kidney, leukocytes.

Sequence similarities

Belongs to the calycin superfamily. Lipocalin family.

Developmental stage

Expression in the amniotic fluid increases dramatically during weeks 12 to 25 of pregnancy. Levels decrease slowly after 25 weeks.

Domain

Forms a beta-barrel structure that accommodates hydrophobic ligands in its interior.

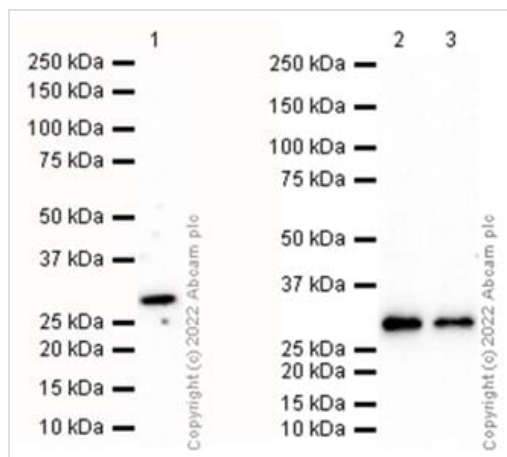
Post-translational modifications

Both N-glycosylation recognition sites are almost quantitatively occupied by N-glycans of the biantennary complex type, with a considerable proportion of structures bearing a bisecting GlcNAc. Agalacto structure as well as sialylated and nonsialylated oligosaccharides bearing alpha2-3- and/or alpha2-6-linked NeuNAc are present.

Cellular localization

Rough endoplasmic reticulum. Nucleus membrane. Golgi apparatus. Cytoplasm > perinuclear region. Secreted. Detected on rough endoplasmic reticulum of arachnoid and meningioma cells. Localized to the nuclear envelope, Golgi apparatus, secretory vesicles and spherical cytoplasmic structures in arachnoid trabecular cells, and to circular cytoplasmic structures in meningeal macrophages and perivascular microglial cells. In oligodendrocytes, localized to the rough endoplasmic reticulum and nuclear envelope. In retinal pigment epithelial cells, localized to distinct cytoplasmic domains including the perinuclear region. Also secreted.

Images



Western blot - Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] - BSA and Azide free (ab236119)

All lanes : Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] ([ab182141](#)) at 1/10000 dilution

Lane 1 : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate at 15 µg

Lane 2 : SW480 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3 : THP-1 (Human monocytic leukemia monocyte) whole cell lysate at 20 µg

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

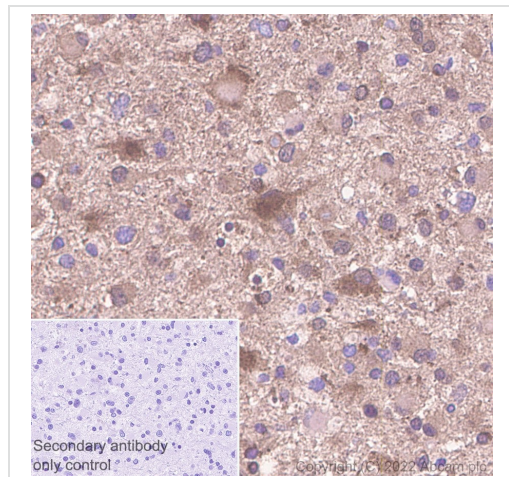
Predicted band size: 21 kDa

Exposure time: 60 seconds

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Primary and secondary antibodies: incubated for 1h at room temperature.

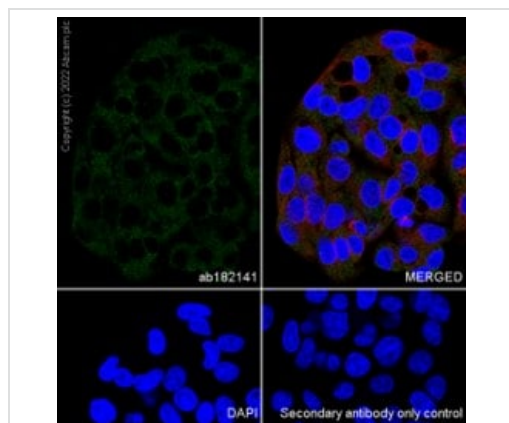
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab182141**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] - BSA and Azide free (ab236119)

The human glioma paraffin-embedded sections were Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins and labeling **ab182141** at 1/200 dilution for 30 mins at room temperature, then followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

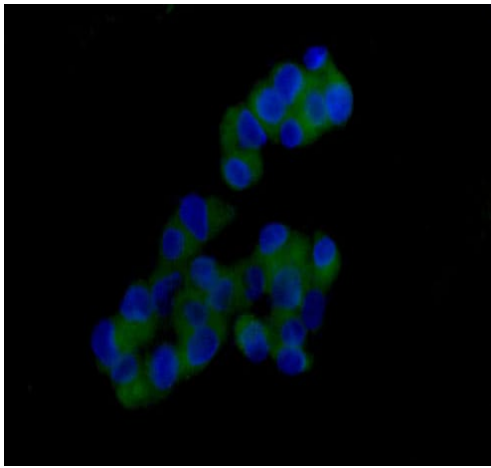
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab182141**).



Immunocytochemistry/ Immunofluorescence - Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] - BSA and Azide free (ab236119)

HepG2 cells were fixed in 4% PFA and permeabilized with 0.1% Triton X-100. Primary antibody, **ab182141** at 1/200 was incubated overnight at 4° C, followed by AlexaFluor® 488-conjugated Goat anti- Rabbit secondary antibody (**ab150081**) at 1/1000 dilution at RT for 45 min. **ab195889** AlexaFluor® 594-conjugated Anti-alpha Tubulin, used as a counterstain at 1/200 dilution, was co-incubated with **ab182141** overnight at 4° C. Nucleus were visualized using DAPI.

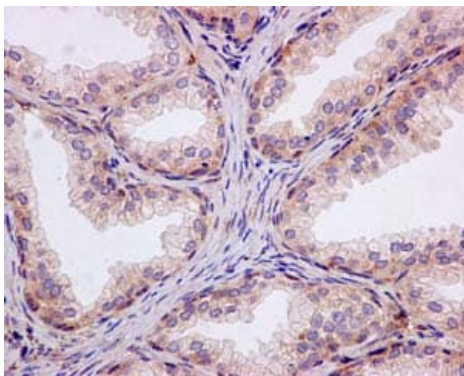
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Immunocytochemistry/ Immunofluorescence - Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] - BSA and Azide free (ab236119)

Immunofluorescent analysis of 4% paraformaldehyde-fixed HepG2 cells labeling Prostaglandin D Synthase (Lipocalin)/PDS with **ab182141** at 1/100 dilution, followed by Goat anti rabbit IgG (Alexa Fluor®488) secondary antibody at 1/200 dilution. Counterstained with DAPI.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab182141**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Prostaglandin D Synthase (Lipocalin)/PDS antibody [EP12357] - BSA and Azide free (ab236119)

Immunohistochemical analysis of paraffin-embedded Human prostate tissue labeling Prostaglandin D Synthase (Lipocalin)/PDS with **ab182141** at 1/100 dilution, followed by prediluted HRP Polymer for Rabbit IgG. Counterstained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab182141**).

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Prostaglandin D Synthase (Lipocalin)/PDS
antibody [EP12357] - BSA and Azide free
(ab236119)

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