

Product datasheet

Recombinant Human Prostaglandin D Synthase (Lipocalin)/PDS protein ab63850

1 Image

Description

Product name	Recombinant Human Prostaglandin D Synthase (Lipocalin)/PDS protein
Purity	> 95 % SDS-PAGE. Please filter the product by an appropriate sterile filter before using it in the cell culture.
Expression system	Escherichia coli
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MRGSHHHHHH GMASAPEAQV SVQPNFQQDK FLGRWFSAGL ASNSSLREK KAALSMCKSV VAPATDGGLN LTSTFLRKNQ CETRTMLLQP AGSLGYSYR SPHWGSTYSV SVVETDYDQY ALLYSQGSKG PGEDFRMATL YSRTQTPRAE LKEKFTAFCK AQQFTEDTV FLPQTDKCMTEQ
Amino acids	23 to 190

Specifications

Our **Abpromise guarantee** covers the use of **ab63850** in the following tested applications.

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

Applications	Western blot SDS-PAGE
Form	Lyophilized
Additional notes	This product was previously labelled as Prostaglandin D Synthase (Lipocalin)

Preparation and Storage

Stability and Storage Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Constituents: 0.242% Tris, 0.116% Sodium chloride

Reconstitution

Add deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

General Info

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.

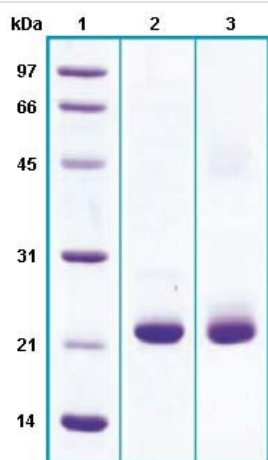
Post-translational modifications

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



12% SDS-PAGE separation of ab63850. Molecular Weight: ~20.3 kDa.

Lane 1. Molecular weight marker

Lane 2. reduced and heated sample, 5µg/lane

Lane 3. non-reduced and non-heated sample, 5µg/lane

SDS-PAGE - Recombinant Human Prostaglandin D Synthase (Lipocalin)/PDS protein (ab63850)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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