

Goat Anti-TSPO / PBR (isoform) Antibody Peptide-affinity purified goat antibody Catalog # AF2121a

### Specification

# Goat Anti-TSPO / PBR (isoform) Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Concentration Isotype Calculated MW

WB, IHC, E <u>P30536</u> <u>NP\_000705</u>, <u>706</u> Human Goat Polyclonal 100ug/200ul IgG 18828

## Goat Anti-TSPO / PBR (isoform) Antibody - Additional Information

Gene ID 706

**Other Names** Translocator protein, Mitochondrial benzodiazepine receptor, PKBS, Peripheral-type benzodiazepine receptor, PBR, TSPO, BZRP, MBR

**Dilution** WB~~1:1000 IHC~~1:100~500 E~~N/A

**Format** 0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** Goat Anti-TSPO / PBR (isoform) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Goat Anti-TSPO / PBR (isoform) Antibody - Protein Information

Name TSPO

Synonyms BZRP, MBR



## Function

Can bind protoporphyrin IX and may play a role in the transport of porphyrins and heme (By similarity). Promotes the transport of cholesterol across mitochondrial membranes and may play a role in lipid metabolism (PubMed:<a href="http://www.uniprot.org/citations/24814875" target="\_blank">24814875</a>), but its precise physiological role is controversial. It is apparently not required for steroid hormone biosynthesis. Was initially identified as peripheral-type benzodiazepine receptor; can also bind isoquinoline carboxamides (PubMed:<a href="http://www.uniprot.org/citations/1847678" target="\_blank">1847678</a>).

#### **Cellular Location**

Mitochondrion membrane; Multi-pass membrane protein

#### **Tissue Location**

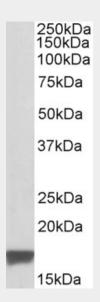
Found in many tissue types. Expressed at the highest levels under normal conditions in tissues that synthesize steroids.

## Goat Anti-TSPO / PBR (isoform) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

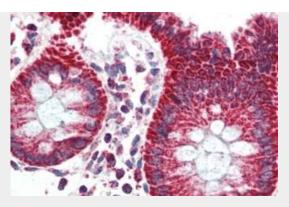
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Goat Anti-TSPO / PBR (isoform) Antibody - Images



AF2121a (0.1  $\mu$ g/ml) staining of Human Breast Cancer lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.





AF2121a (2.5  $\mu$ g/ml) staining of paraffin embedded Human Colon. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

# Goat Anti-TSPO / PBR (isoform) Antibody - Background

Present mainly in the mitochondrial compartment of peripheral tissues, the protein encoded by this gene interacts with some benzodiazepines and has different affinities than its endogenous counterpart. The protein is a key factor in the flow of cholesterol into mitochondria to permit the initiation of steroid hormone synthesis. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

## Goat Anti-TSPO / PBR (isoform) Antibody - References

Oral cancer, cigarette smoke and mitochondrial 18kDa translocator protein (TSPO) - In vitro, in vivo, salivary analysis. Nagler R, et al. Biochim Biophys Acta, 2010 May. PMID 20085808. The spontaneous Ala147Thr amino acid substitution within the translocator protein influences pregnenolone production in lymphomonocytes of healthy individuals. Costa B, et al. Endocrinology, 2009 Dec. PMID 19846611.

Translocator protein blockade reduces prostate tumor growth. Fafalios A, et al. Clin Cancer Res, 2009 Oct 1. PMID 19789311.

Genetic susceptibility to distinct bladder cancer subphenotypes. Guey LT, et al. Eur Urol, 2010 Feb. PMID 19692168.

Ala147Thr substitution in translocator protein is associated with adult separation anxiety in patients with depression. Costa B, et al. Psychiatr Genet, 2009 Apr. PMID 19668118.