

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Tryptophan Hydroxylase 1/TPH-1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Tryptophan Hydroxylase 1/TPH-1 Met102-Pro403 Accession # P17752
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Tryptophan Hydroxylase 1 (TPH-1) is a 50-60 kDa intracellular enzyme that belongs to the bipterin-dependent, aromatic amino acid hydroxylase family. It is expressed in gut enterochromaffin cells and pineal gland. TPH-1 catalyzes the hydroxylation of L-Trp, which is the rate-limiting step in serotonin biosynthesis. Human TPH-1 is 444 amino acids (aa) in length. It contains an N-terminal regulatory domain (aa 1-98), a catalytic region (aa 99-424), and a C-terminal Leu-zipper tetramerization domain (aa 425-444). TPH-1 is phosphorylated on Ser58, and subsequently binds to 14-3-3 proteins, resulting in activation. It functions as a noncovalent Fe-binding 230 kDa homotetramer. There are three potential splice variants. One shows a 29 aa substitution for aa 438-444, a second shows a 50 aa substitution for aa 157-444, and a third shows a 68 aa substitution for aa 1-21. Over aa 102-403, Human TPH-1 shares 95% aa identical with mouse TPH-1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.