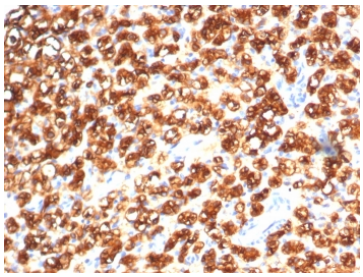
Tryptophan Hydroxylase 1 Antibody [clone TPH1/7662] (V4148)

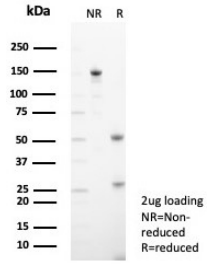
Catalog No.	Formulation	Size
V4148-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4148-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4148SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	TPH1/7662
Purity	Protein A/G affinity
UniProt	P17752
Localization	Cytoplasm, Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This Tryptophan Hydroxylase 1 antibody is available for research use only.



IHC staining of FFPE human kidney cancer with TPH1 antibody (clone TPH1/7662). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free TPH1 antibody (clone TPH1/7662) as confirmation of integrity and purity.

Description

Phenylalanine hydroxylase (PAH), tyrosine hydroxylase (TH) and tryptophan hydroxylase (TPH) comprise a small family of monooxygenases that use tetrahydropterine as a cofactor during the catabolism of aromatic L-amino acids. PAH, TH and TPH all contain catalytic domains with an amino-terminal regulatory domain and a short carboxy-terminal tetramerization domain. Each of these enzymes also contains a single ferrous iron atom, which is bound to two histidines and a glutamate, and is likely to be involved in the formation of the hydroxylating intermediate. TPH is both the first and rate-limiting-step in the biosynthesis of serotonin in the central nervous system and melatonin in the pineal gland. Alteration of TPH function may be a key factor in the pathology of several neuropsychiatric disorders associated with serotonin, including depression, aggression, alcoholism and schizophrenia. For instance, LDOPA, which is used as a common therapy for Parkinson s disease (PD) patients, inhibits TPH function which, subsequently, is thought to contribute to the onset of depression in PD patients.

Application Notes

Optimal dilution of the Tryptophan Hydroxylase 1 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human TPH1 protein was used as the immunogen for the Tryptophan Hydroxylase 1 antibody.

Storage

Aliquot the Tryptophan Hydroxylase 1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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