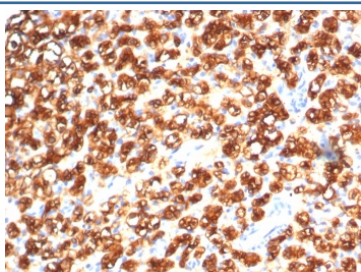


Tryptophan Hydroxylase 1 Antibody [clone TPH1/7662] (V4148)

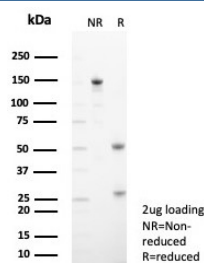
Catalog No.	Formulation	Size
V4148-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4148-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4148SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

[Bulk quote request](#)

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
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 -20°C or colder. Avoid repeated freeze-thaw cycles.