NEUROMICS

5-HTP (5-Hydroxytryptophan) Data Sheet

Catalog Number:	RA24446	**Host:**	Rabbit
Product Type:	Whole Serum	**Species Reactivity:**	Rat
Immunogen Sequence:	5-HTP coupled to bovine serum albumin (BSA) with paraformaldehyde.	**Format:**	Lyophilized. 100 ul with <0.09% sodium azide as a preservative.

Applications: Immunohistochemistry: 1:1,000-1:2,000 in PBS/0.3% Triton X-100 - Bn-AV/HR.

Optimal dilution will vary depending upon fixation, labeling technique and/or detection system; therefore, a dilution series is recommended. Staining is completely eliminated by pretreatment of the diluted antibody with 5 µg of LHRH per mL of diluted antiserum.

Reconstitution: Do not reconstitute until ready to use since the product is most stable when lyophilized. The product does not need to be kept cooled during shipping. For long-term storage, store lyophilized antibody until ready to use at -15º C or lower. Reconstitute with 100 µL of distilled or deionized water. If desired, dilute with PBS or Tris buffer at a dilution no higher than 1/10

Storage: After reconstitution, use immediately or refrigerate at 2º-8º C up to 2 days. For long-term storage, appropriately aliquot antibody to avoid repeated freeze/thaw cycles and freeze at -15° C or lower

Application Notes

Description/Data:
5-Hydroxytryptophan (5-HTP), also known as oxitriptan (INN), is a naturally occurring amino acid and chemical precursor as well as metabolic intermediate in the biosynthesis of the neurotransmitters serotonin and melatonin from tryptophan. 5-Hydroxytryptophan is decarboxylated to serotonin (5-hydroxytryptamine or 5-HT) by the enzyme aromatic-L-amino-acid decarboxylase with the help of vitamin B6.[4] This reaction occurs both in nervous tissue and in the liver.5-HTP crosses the blood-brain barrier,[6] while 5-HT does not. Since 5-HTP incresease levels of serotonin, it is used to treat depression, sleep disorders and pain.

Tissue Preparation:
10 µm cryostat or 50 µm vibratome.
- Fixation: 4% paraformaldehyde in 0.1M Phosphate buffer, pH 7.4; 500 mL over ~ 20 min.
- Post Fixation: 1.5 hour at 4° C in 4% paraformaldehyde in 0.1M phosphate buffer, pH 7.4.
- Note: If needed, low levels of glutaraldehyde (0.1-0.3%) may be used in conjugation with paraformaldehyde

Immunohistochemistry
The antibody has significant biotin-avidin/HRP staining at a 1/1,000 - 1/2,000 dilution in rat raphe nuclei. Optimal dilution will vary depending upon fixation, labeling technique and/or detection system; therefore, a dilution series is recommended. The specificity of the antiserum was evaluated using a model system of gelatin-indole plugs by a method similar to published procedures (Shipper and Tilders, 1983). Results showed that the 5-HTP antibody dose dependently stained 5-HTP but did not stain any concentration of 5-HT or 5-HIAA. The antiserum was also tested by pre-adsorption with indole/paraformaldehyde/BSA conjugates. Staining was completely blocked by pre-adsorption with 5-HTP conjugate and unaffected by 5-HIAA or 5-HT conjugate.

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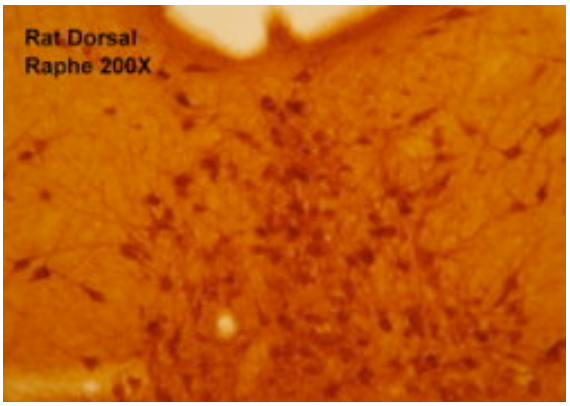

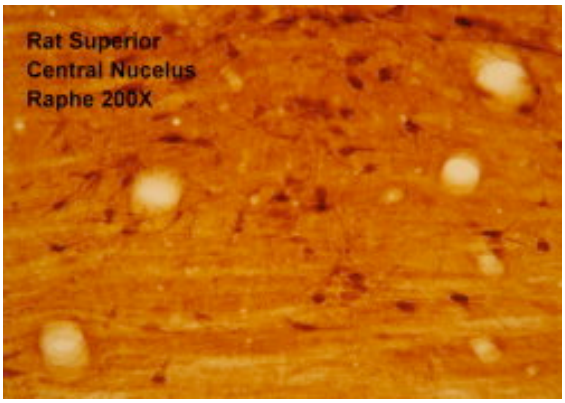

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