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<b>Catalog Number:</b>	RA24600	<b>Host:</b>	Rabbit
<b>Product Type:</b>	Whole Serum	<b>Species Reactivity:</b>	Rat, Human, Bovine
<b>Immunogen Sequence:</b>	Dopamine beta-Hydroxylase purified from bovine adrenal medulla.	<b>Format:</b>	Lyophilized. 100 ul with 0.09% sodium azide as a preservative.
<b>Applications:</b>	Immunofluorescence: 1:400-1:800 Immunohistochemistry: 1:1,000-1:2,000 (biotin-streptavidin/HRP).		
	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.		
<b>Reconstitution:</b>	Do not reconstitute until ready to use since the product is most stable when lyophilized. The product does not need to be cooled during shipping. For long-term storage, store lyophilized antibody until ready to use at -15° C or lower. Reconstitute with 100 µL of distilled or deionized water.		
<b>Storage:</b>	Maintain at +2-8°C for 3 months or at -20°C for longer periods. Stable for 1 year. Avoid repeated freeze-thaw cycles.		

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### Application Notes

#### Tissue Preparation:

10 µm cryostats or 50 µm vibratome

•Fixative: 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 0.1 M phosphate buffer, pH 7.4.

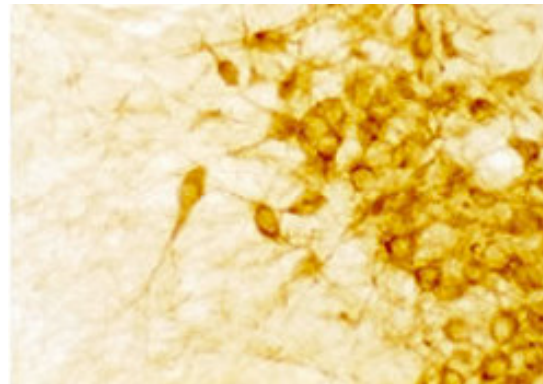
*Note: If needed, low levels of glutaraldehyde (0.1-0.3%) may be used in conjunction with paraformaldehyde.*

#### Immunohistochemistry/Immunofluorescence:

1/1,000 - 1/2,000 diluted in 1.0% Sodium Metabisulfite/0.05 M PBS/0.3% Triton X100, pH 7.5. - Biotin/Streptavidin-HRP detection. (Note: Sodium Metabisulfite is eliminated from the secondary antibody and streptavidin/HRP diluent). Incubate 18-24 hours at 2-8° C. Detect using Bn-SA/HRP reagents at dilutions recommended by the manufacturer.

#### Description/Data:

Regulation of gene expression of dopamine beta hydroxylase (DBH) and tyrosine hydroxylase (TH), two of the catecholamine biosynthetic enzymes, by cyclic AMP, diacyl glycerol, and Ca<sup>2+</sup> leads to increased neurotransmitter biosynthesis. Dopamine beta-hydroxylase catalyzes the conversion of dopamine to noradrenaline and is expressed selectively in noradrenergic and adrenergic neurons in the nervous system. The disruption of the DBH gene is thought to cause changes in development and behavior in certain models. Both DBH and the multiple regulatory pathways of DBH are of increasing research in many neurological diseases.



*Image: Staining of DBH positive neurons in rat brainstem.*

### FOR RESEARCH USE ONLY

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