

Product Specification Sheet

**Dopamine beta-Hydroxylase (DBH) Antibodies**

<b>Cat #</b> DBH12-A	Rabbit Anti-Human DBH peptide IgG # 1	<b>SIZE:</b> 100 ug
<b>Cat #</b> DBH12-P	Human DBHcontrol/blocking peptide # 1	<b>SIZE:</b> 100 ug

**Dopamine beta hydroxylase (DBH)** or Dopamine beta monoxygenase belongs to the copper type II, ascorbate-dependent monoxygenase family. DBH mediates conversion of dopamine to noradrenaline. It requires PQQ, copper, and ascorbate for enzyme activity. DBH exists as both in a soluble form (in chromaffin granules) and as membrane bound anchored by its signal peptide. Its activity is enhanced by nerve growth factor, reserpine, acetylcholine, and glucocorticoids. There are two known forms of the enzymes: DBH-A and DBH-B, which differ in one position.

Bovine DBH is 610 aa protein (mouse 621 aa; rat 620 aa, human 603 aa. Human DBH is 603 aa protein (mouse 621 aa; rat 620 aa, bovine 610 aa). DBH also contains a signal peptide that is cleaved in the soluble form.

**Source of Antigen, Antibodies**

<b>Antigen</b>	18-aa peptide of human DBH (1) <b>Designated (DBH12-P or control peptide)</b> conjugated to KLH. <b>Epitope location</b> ~ N-terminal
<b>Ab Host/type</b>	Rabbit, polyclonal Aff pure IgG ( <b>cat #DBH12-A</b> ) <b>purified over antigen-agarose column</b>
<b>2-ab</b>	<b>Goat Anti-rabbit IgG-HRP</b> cat # 20320 (AP, biotin, FITC conjugates also available)
<b>-ve control</b>	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**  
100 ug/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% BSA  
**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**  
100 ug/100 ul solution lyophilized powder  
Supplied in Buffer: PBS pH 7.5,  
**Reconstitute powder in PBS at 1 mg/ml.**

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder

**Recommended Usage**

**Western Blotting** (1:500-1:2K) using Chemiluminescence technique). Human adrenal medulla DBH is ~70-75 kDa.

**Immunohistochemistry/IF:** Not tested..

**Specificity & Cross-reactivity**

Human DBH12-P peptide sequence is 83% conserved in mouse, rat, and bovine DBH. Anti-DBH reacts with-human, monkey, bovine, rat, and sheep DBH. Other species not tested. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at:the web site).

**General References:**

Kobayashi k et al (1989) Nucl Acid res. 17, 1089-1102; Lamouroux A et al (1987) EMBO J 6, 3931-3937; McMahon A et al (1990) J. Neurosci. Res. 25, 395-404; Nakano T et al (1992) BBRC 189, 590-599; Neurosci. Lett (1990) 120, 141-145.

**Citations of ADI's antibodies for DR** (see updated list at: The web sit)

\*This product is for In vitro research use only.

**Related material available from ADI**

Anti-Rabbit IgG-HRP Conjugate and ECL Reagents

NuGlo Chemiluminescent Substrate Kit

**Western Blot Recycling Kit (Strips blots in 5 minutes)**

DBH12-A-P

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