

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human Dopa Decarboxylase/DDC in direct ELISAs and human, mouse and rat Dopa Decarboxylase/DDC in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Dopa Decarboxylase/DDC Met1-Glu480 Accession # P20711
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

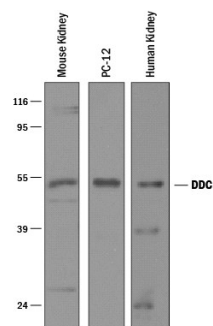
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Immunohistochemistry</b>	1-15 µg/mL	See Below
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Dopa Decarboxylase/DDC (Catalog # 3564-DC), see our available <a href="#">Western blot detection antibodies</a>

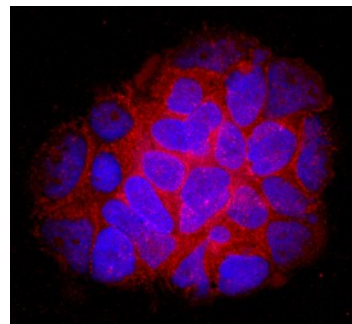
## DATA

### Western Blot



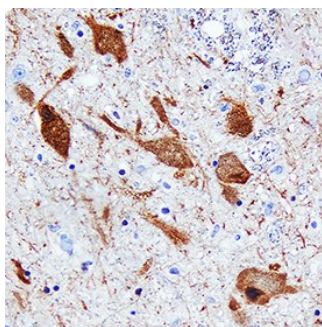
**Detection of Human, Mouse, and Rat Dopa Decarboxylase/DDC by Western Blot.** Western blot shows lysates of mouse kidney tissue, PC-12 rat adrenal pheochromocytoma cell line, and human kidney tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse/Rat Dopa Decarboxylase/DDC Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3564) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for Dopa Decarboxylase/DDC at approximately 54 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

### Immunocytochemistry



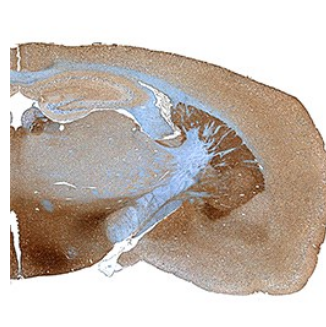
**Dopa Decarboxylase/DDC in IMR-32 Human Cell Line.** Dopa Decarboxylase/DDC was detected in immersion fixed IMR-32 human neuroblastoma cell line using Goat Anti-Human/Mouse/Rat Dopa Decarboxylase/DDC Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3564) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the [NorthemLights™ 557-conjugated Anti-Goat IgG Secondary Antibody](#) (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunohistochemistry



**Dopa Decarboxylase/DDC in Human Brain.** Dopa Decarboxylase/DDC was detected in immersion fixed paraffin-embedded sections of human brain (substantia nigra) using Goat Anti-Human/Mouse/Rat Dopa Decarboxylase/DDC Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3564) at 1 µg/mL overnight at 4 °C. Tissue was stained using the [Anti-Goat HRP-DAB Cell & Tissue Staining Kit](#) (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Immunohistochemistry



**Dopa Decarboxylase/DDC in Mouse Brain.** Dopa Decarboxylase/DDC was detected in perfusion fixed frozen sections of mouse brain using Goat Anti-Human/Mouse/Rat Dopa Decarboxylase/DDC Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3564) at 5 µg/mL overnight at 4 °C. Tissue was stained using the [Anti-Goat HRP-DAB Cell & Tissue Staining Kit](#) (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cytoplasm. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Dopa decarboxylase (DDC), also known as aromatic amino acid decarboxylase, is a group II decarboxylase (1). The enzyme catalyzes the decarboxylation of aromatic L-amino acids to produce the corresponding amines. DDC produces the neurotransmitters dopamine and serotonin from L-Dopa and L-5-hydroxytryptophan, respectively. The inhibition of DDC could be used for the treatment of schizophrenia and Parkinson's disease (2).

## References:

1. Sandmeier, E. *et al.* (1994) *Eur. J. Biochem.* **221**:997.
2. Bertoldi, M. *et al.* (1996) *J. Biol. Chem.* **271**:23954.