

## Basic Information

<b>Product Name</b>	Anti-SEMA3A Antibody
<b>Gene Name</b>	SEMA3A
<b>Source</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Species Reactivity</b>	human, mouse, rat
<b>Tested Application</b>	WB, ELISA
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
<b>Immunogen</b>	E. coli-derived human Semaphorin 3A recombinant protein (Position: N21-D223). Human Semaphorin 3A shares 97% and 97.5% amino acid (aa) sequence identity with mouse and rat Semaphorin 3A, respectively.
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Immunogen affinity purified.
<b>Observed MW</b>	89 kDa
<b>Dilution Ratios</b>	Western blot (WB):1:500-2000 ELISA: 1:100-1000

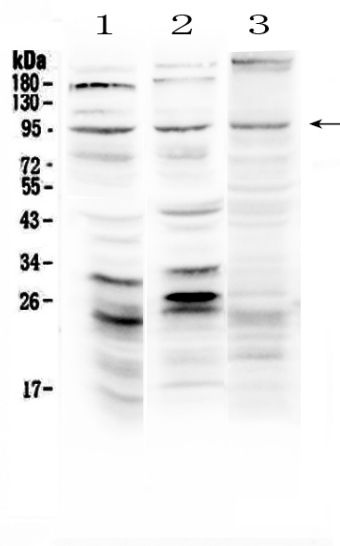
## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

SEMA3A is also known as COLL1, SEMA1 or SEMAL. This gene is a member of the semaphorin family and encodes a protein with an Ig-like C2-type (immunoglobulin-like) domain, a PSI domain and a Sema domain. This secreted protein can function as either a chemorepulsive agent, inhibiting axonal outgrowth, or as a chemoattractive agent, stimulating the growth of apical dendrites. In both cases, the protein is vital for normal neuronal pattern development. Increased expression of this protein is associated with schizophrenia and is seen in a variety of human tumor cell lines. Also, aberrant release of this protein is associated with the progression of Alzheimer's disease.

## Selected Validation Data



Western blot analysis of SEMA3A using anti-SEMA3A antibody (A01761-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: mouse brain tissue lysates,

Lane 3: human U-87MG whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-SEMA3A antigen affinity purified polyclonal antibody (A01761-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for SEMA3A at approximately 89 kDa. The expected band size for SEMA3A is at 89 kDa.