10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

Protocadherin Gamma C3 Antibody

Protocadherin Gamma C3 Antibody, Clone S174B-27

Catalog # ASM10306

Specification

Protocadherin Gamma C3 Antibody - Product Information

Application	ICC/IF, WB
Primary Accession	Q91XX1
Other Accession	NP_291059.1
Host	Mouse
Isotype	IgG1
Reactivity	Human, Mouse
Clonality	Monoclonal
Format	FITC

Description
Mouse Anti-Mouse Protocadherin Gamma C3 Monoclonal IgG1

Target/Specificity
Detects ~100kDa.

Other Names
PCDHGC3 Antibody, Cadherin like 2 Antibody, PC 43 Antibody, PC43 Antibody, PCDH 2 Antibody, PCDH gamma C3 Antibody, PCDH2 Antibody, PCDHGC 3 Antibody, Protocadherin 2 Antibody, Protocadherin 43 Antibody, Protocadherin gamma C3 Antibody, Protocadherin gamma subfamily C 3 Antibody, Protocadherin2 Antibody, Protocadherin43 Antibody, Pcdhgb6 Antibody

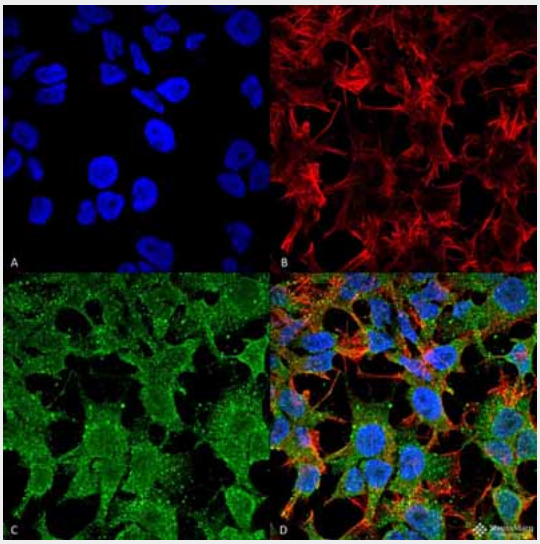
Immunogen
Fusion protein amino acids 720-804 (variable cytoplasmic domain) of mouse Gamma- protocadherin-C3. Human: 97% identity (83/85 amino acids identical). Rat: 97% identity (83/85 amino acids identical). No significant identity with other Gamma-protocadherin proteins.

Purification
Protein G Purified

Storage	-20ºC

Storage Buffer
PBS pH 7.4, 50% glycerol, 0.1% sodium azide

Shipping	Blue Ice or 4ºC



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Protocadherin Gamma C3 Monoclonal Antibody, Clone S174B-27 (ASM10306). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Protocadherin Gamma C3 Monoclonal Antibody (ASM10306) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60min RT, 5min RT. Localization: Cell Membrane. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Protocadherin Gamma C3 Antibody (D) Composite.

Temperature

Certificate of Analysis

1 µg/ml of SMC-474 was sufficient for detection of Protocadherin Gamma C3 in 20 µg of COS cell lysate (transiently transfected with GFP-tagged Protocadherin Gamma C3 plasmids) by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

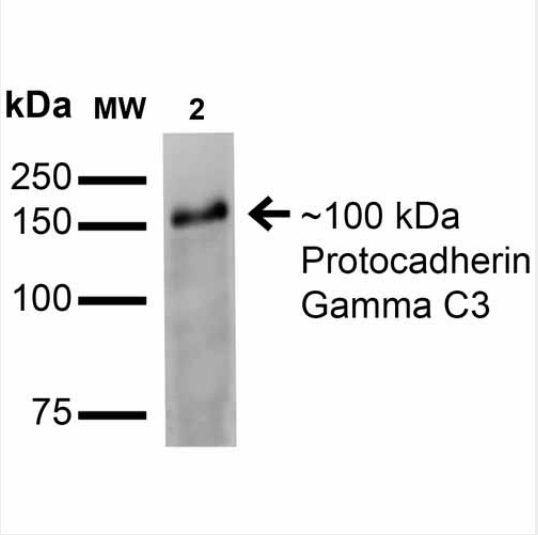
Cellular Localization

Cell Membrane

Protocadherin Gamma C3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



Western Blot analysis of Monkey COS cells transfected with GFP-tagged Gamma-cadherin-C3 showing detection of ~100 kDa Protocadherin Gamma C3 protein using Mouse Anti-Protocadherin Gamma C3 Monoclonal Antibody, Clone S174B-27 (ASM10306). Lane 1: Molecular Weight Ladder. Lane 2: Monkey COS cells transfected with GFP-tagged Gamma-cadherin-C3. Load: 15 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-Protocadherin Gamma C3 Monoclonal Antibody (ASM10306) at 1:200 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 1 hour RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~100 kDa.

Protocadherin Gamma C3 Antibody - Background

This gene is a member of the protocadherin gamma gene cluster, one of three related clusters tandemly linked on chromosome five. These gene clusters have an immunoglobulin-like organization, suggesting that a novel mechanism may be involved in their regulation and expression. PCDHGC3 is a potential calcium-dependent cell-adhesion protein. It may be involved in the establishment and maintenance of specific neuronal connections in the brain. This gene is a member of the protocadherin gamma gene cluster, one of three related clusters tandemly linked on chromosome five.
These gene clusters have an immunoglobulin-like organization, suggesting

that a novel mechanism may be involved in their regulation and expression. The gamma gene cluster includes 22 genes divided into 3 subfamilies. Subfamily A contains 12 genes, subfamily B contains 7 genes and 2 pseudogenes, and the more distantly related subfamily C contains 3 genes. The tandem array of 22 large, variable region exons are followed by a constant region, containing 3 exons shared by all genes in the cluster. Each variable region exon encodes the extracellular region, which includes 6 cadherin ectodomains and a transmembrane region. The constant region exons encode the common cytoplasmic region. These neural cadherin-like cell adhesion proteins most likely play a critical role in the establishment and function of specific cell-cell connections in the brain. Alternative splicing has been described for the gamma cluster genes.