abcepta

Protocadherin Gamma (pan) Antibody
Protocadherin Gamma Antibody, Clone S159-5
Catalog # ASM10288

Specification

Protocadherin Gamma (pan) Antibody - Product Information

Application	**WB**
Primary Accession	Q91XZ0
Other Accession	NP_291062.1
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human, Mouse, Rat**
Clonality	**Monoclonal**
Format	**APC**

Description
Mouse Anti-Mouse Protocadherin Gamma (pan) Monoclonal IgG1

Target/Specificity
Detects ~100kDa. Cross-reacts with all Gamma-protocadherin-A, -B and -C proteins.

Other Names
PCDH gamma A Antibody, PCDH-gamma-A Antibody, PCDHGA Antibody, Protocadherin gamma A Antibody, Protocadherin gamma subfamily A Antibody, Gamma Protocadherin A (pan) Antibody, Pan-Gamma-Protocadherin-A Antibody, Pan Gamma Protocadherin A Antibody

Immunogen
Fusion protein corresponding to amino acids 808-931 (C-terminal cytoplasmic constant domain) of mouse Protocadherin-gamma-A1 that is shared by all 22 Gamma-protocadherins (A subfamily amino acids ~807-930, B subfamily amino acids ~789-912 and C subfamily amino acids ~818-941). 99% identity with human (123/124 amino acids).

Purification
Protein G Purified

Storage	**-20ºC**

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

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 μg/ml of SMC-454 was sufficient for detection of Protocadherin gamma (pan) in 20 μg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
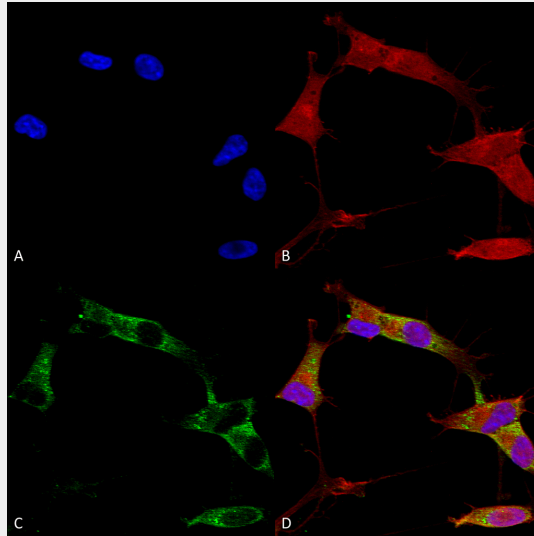
Cellular Localization
Cell Membrane

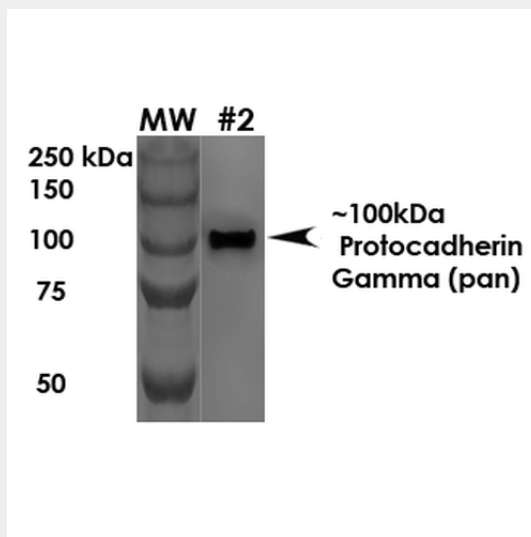## Protocadherin Gamma (pan) Antibody - Protocols

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](#)

Protocadherin Gamma (pan) Antibody - Images

Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Protocadherin Gamma (pan) Monoclonal Antibody, Clone N159/5 (ASM10288). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-Protocadherin Gamma (pan) Monoclonal Antibody (ASM10288) at 1:100 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) Protocadherin Gamma (pan) Antibody (D) Composite.

Western Blot analysis of Rat Brain Membrane showing detection of ~100 kDa Protocadherin

Gamma protein using Mouse Anti-Protocadherin Gamma Monoclonal Antibody, Clone N159/5 (ASM10288). Load: 10 µg. Primary Antibody: Mouse Anti-Protocadherin Gamma Monoclonal Antibody (ASM10288) at 1:1000 for 1 hour at RT. Secondary Antibody: Goat Anti-Mouse HRP at 1:200 for 1 hour at RT. Predicted/Observed Size: ~100 kDa.

Protocadherin Gamma (pan) Antibody - Background

 The protocadherin gamma gene cluster is 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.