

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Protocadherin-1 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 648127
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Protocadherin-1 Thr58-Asn162 Accession # Q08174
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	A431 human epithelial carcinoma cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Protocadherin-1 (PCDH-1; also PC42) is a 150 - 170 kDa δ1 subgroup member of the nonclustered protocadherin family of molecules. It is expressed on macrophages, respiratory epithelium, endothelial cells and neurons. Protocadherin-1 apparently forms homophilic Ca²⁺-dependent complexes and likely serves as an adhesion molecule. Human full-length Protocadherin-1 precursor is 1237 amino acids (aa) in length. It is a type I transmembrane glycoprotein that contains a 795 aa extracellular domain (ECD) (aa 58-852) plus a 364 aa cytoplasmic region. There are seven cadherin domains in the ECD (aa 58-844), and an RRVTF cytoplasmic motif that binds PP1α phosphatase. There are multiple splice variants. Alternative start sites exist at Met23 and Met235, there is a deletion of aa 209-220, and a 27 aa substitution for aa 1034-1237. Over aa 58-162, human Protocadherin-1 shares 96% aa identity with mouse Protocadherin-1.

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