

DESCRIPTION

Species Reactivity	Human
Specificity	Detects rhCDH-9 in Direct ELISA.
Source	Monoclonal Mouse IgG Clone # 1087334
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human Cadherin-9 Gly54-Ala615 Accession # Q9ULB4
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

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. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Cadherin-9 (CDH9) is a member of the larger Cadherin superfamily of cell surface glycoproteins originally identified as proteins mediating cell-cell adhesion (1). In humans, there are more than 100 cadherin members divided into distinct families and numerous sub-families (1-3). Cadherins share a general structural architecture with an extracellular domain (ECD) containing 2 or more extracellular Ca²⁺ binding cadherin repeat (EC) domains, a single-pass transmembrane section, and a short cytoplasmic tail (1-3). Cadherins function by forming homophilic binding interactions through these EC domains to generate both *trans* and *cis* dimers (1-3). Human CDH9 is categorized as a classical cadherin, containing 5 EC domains, and the ECD shares 94% amino acid sequence identity with the ECD of both mouse and rat CDH9, respectively. Cadherins are found in diverse cell types and have been implicated as essential for the morphogenesis and homeostasis of multiple tissues and organs (1-3). Human CDH9 functions primarily in the central nervous system and is expressed in DG and CA3 neurons. Loss of CDH9 expression leads to defects in synapse formation and differentiation of specific neural circuits. (4). Additionally, disruption to CDH9 and CDH10 genes has been linked to autism spectrum disorders (5, 6). CDH9 expression has been identified in human kidney, and it has been used as a cell surface marker for fibroblasts (7). Recently, CDH9 has been reported as a potential suppressor of cancer metastasis (8).

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