Human Cadherin-11 Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1790X
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cadherin-11 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) Cadherin-7, rhCadherin-8, rhCadherin-10, rhCadherin-18 and rhCadherin-20 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human Cadherin-11 Phe23-Thr617 Accession # AAA35622
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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.*

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Adhesion Blockade	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
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

The cadherin superfamily comprises a large number of membrane glycoproteins with one or more cadherin repeats, which are involved in Ca^{2+} dependent cell-cell adhesion. The family can be subdivided into several major subgroups, including the type I and type II classical cadherins, desmosomal cadherins, protocadherins, seven transmembrane (Flamingo) cadherins, FAT-family cadherins, T-cadherin and other unclassified cadherins (1). Cadherin-11, also known as OB-cadherin, is a type II classical cadherin. Classical cadherins are type I transmembrane proteins with an N-terminal extracellular domain containing five tandem cadherin repeats and a C-terminal cytoplasmic domain with a characteristic sequence for binding to catenins. Type I cadherins (E-, N-, P-, R-, M-, and EP-cadherin) differ from type II cadherins (cadherin-5 to -12, -18 to -20 and -22) by the presence of the HAV tripeptide motif in the most N-terminal cadherin repeat (2). Classic cadherins mediate cell-cell adhesion preferentially via homotypic interactions and form adherens juctions that have β-catenin and p120 (ctn) at the cytoplasmic side of the junction (3, 4). Homotypic cadherin interactions also transduce outside-in and inside-out cell signals. Cadherin signaling induces various cellular processes including cell motility, actin cytoskeleton reorganization, proliferation, and differentiation (3, 4). Cadherin-11 is expressed in a variety or normal tissues of mesodermal origin including areas of the kidney and brain, in normal osteoblasts, and in tumors of the stomach, kidney, colon, breast, and bone (osteosarcoma) (5, 6). It is also differentially expressed in the embryonic brain and may be important in regulating neural development. Human Cadherin-11 exhibits a unique mRNA splice site allowing for two forms of the protein to be expressed, a full-length 796 amino acid (aa) protein and a COOH terminus-truncated variant of 693 aa. The truncated variant has a unique cytoplasmic region due to a frameshift event (3). The full-length human and mouse Cadherin-11 share 97% homology at the aa sequence level.

PRODUCT SPECIFIC NOTICES

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