

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Nectin-2/CD112 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 2% cross-reactivity with recombinant human (rh) Nectin-1, rhNectin-3 and rhNectin-4 is observed.                                                             |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Nectin-2/CD112 isoform a<br>Gln32-Leu360<br>Accession # NP_002847                                                                                                                                                     |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Nectins are a small family of Ca<sup>++</sup>-independent immunoglobulin (Ig)-like cell adhesion molecules (CAMs) that organize intercellular junctions (1). The nectin family has at least four members (nectin-1-4), all of which show alternate splicing (except for Nectin-4), a transmembrane (TM) region (except for Nectin-1y), and three extracellular Ig-domains. Nectins are highly homologous to the human receptor for poliovirus, and as such have been alternately named poliovirus receptor-related proteins. They do not, however, appear to bind poliovirus (1). Nectin-2 is a 60 or 65 kDa type I TM glycoprotein that is found on a variety of cell types (2, 3). It has two splice forms (4, 5). Nectin-2δ is a 65 kDa long form and is synthesized as a 538 amino acid precursor. It contains a 31 amino acid (aa) signal sequence, a 329 aa extracellular region, a 21 aa TM segment, and a 157 aa cytoplasmic domain. The extracellular region contains one N-terminal 85 aa V-type Ig domain and two 45-55 aa C2-type Ig domains. The V-domain is believed to mediate nectin binding to its ligands (6). The short, 60 kDa isoform of Nectin-2 (Nectin-2α) has the same signal sequence and extracellular domain as nectin-2δ, but differs in the TM and cytoplasmic region (4, 5). In this case, the cytoplasmic tail is only 94 aa in length. The human extracellular region shows 72% aa sequence identity with the equivalent region in mouse. Nectin-2 is known to bind the pseudorabies virus, and herpes simplex virus-2 (HSV-2), but not HSV-1. It does not bind poliovirus. As a cell adhesion molecule, Nectin-2 will form cis-homodimers (same cell), followed by trans-dimers (across cells). Nectin-2 will not cis-dimerize with other nectins, but will cis-dimerize with its two splice forms. Notably, a Nectin-2 cis-dimer on one cell will heterodimerize with a Nectin-3 cis-dimer on another cell (1). Nectin-2 is found concentrated in adherens junctions, and exists on neurons, endothelial cells, epithelial cells and fibroblasts.

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