DESCRIPTION

Source: Mouse myeloma cell line, NS0-derived

<table>
<thead>
<tr>
<th>N-terminal Sequence</th>
<th>C-terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asp157</td>
<td>IEGRMD</td>
</tr>
<tr>
<td>Accession # P09803</td>
<td>Human IgG1 (Pro100-Lys330)</td>
</tr>
</tbody>
</table>

N-terminal Sequence: Asp157

Analysis

Predicted Molecular Mass: 88.2 kDa (monomer)

SPECIFICATIONS

SDS-PAGE: 120 kDa, reducing conditions

Activity: Measured by the ability of the immobilized protein to support the adhesion of the MCF-7 human breast cancer cells. When 5 x 10^4 cells/well are added to Recombinant Mouse E-Cadherin Fc Chimera coated plates (1.5 µg/mL with 100 µL/well), >50% cells will adhere after 90 minutes at 37 °C.

Optimal dilutions should be determined by each laboratory for each application.

Endotoxin Level: <0.10 EU per 1 µg of the protein by the LAL method.

Purity: >90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation: Lyophilized from a 0.2 µm filtered solution in Tris-Citrate, NaCl and CaCl2. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution: Reconstitute at 100 µg/mL in sterile DPBS with Ca2+ and Mg2+.

Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt; -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

E-Cadherin/Cadherin-1, also known as Uvomorulin in the mouse and rat, is a 120 kDa member of the Cadherin family of cell surface glycoproteins that mediate cell adhesion (1). Mouse E-Cadherin shares 92% and 81% amino acid sequence identity with the rat and human proteins, respectively (2). It is a single-pass transmembrane protein that mediates calcium-dependent epithelial cell adhesion. E-Cadherin has five extracellular EC domains that form homophilic cis-clusters between adjacent epithelial cells and trans-clusters within the same cell. E-Cadherin clusters are critical components of adherens junctions between epithelial cells and act in the formation and maintenance of the epithelial cell barrier (3, 4). The intracellular domain of E-Cadherin binds to the Catenin cytoskeletal complex, which includes p120 Catenin, beta-Catenin, alpha-Catenin, and Vinculin. E-Cadherin expression is critical for epithelial tissue homeostasis. Decreased E-Cadherin is associated with physiological and pathological epithelial-to-mesenchymal transition and cell migration, and E-Cadherin loss contributes to cancer metastasis (5). The extracellular E-Cadherin N-terminal domain can be cleaved by several proteases and is released as a soluble factor that enhances cancer cell motility and EGF R-dependent survival and proliferation (6).

References: