Data Sheet (Cat.No.TMPJ-00045)

Podoplanin Protein, Human, Recombinant (hFc)

General Information

Synonyms: T1A;PDPN;GP36;Podoplanin;Aggrus;T1-α;PA2.26 Antigen;T1-Alpha;Glycoprotein 36

Protein Construction: Ala23-Leu131

Species: Human

Expression Host: HEK293 Cells

Accession: Q86YL7

Molecular Weight: 60-70 KDa (reducing condition)

AA Sequence: Ala23-Leu131

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: Greater than 95% as determined by reducing SDS-PAGE. (QC verified)

Endotoxin: < 0.1 ng/μg (1 EU/μg) as determined by LAL test.

Formulation: Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Podoplanin is a type-1 transmembrane protein that belongs to Podoplanin family. PDPN expressed in various specialized cell types throughout the body. It highly expressed in placenta, lung, skeletal muscle and brain, weakly expressed in brain, kidney and liver. In placenta, PDPN expressed on the apical plasma membrane of endothelium, in lung, expressed in alveolar epithelium. PDPN physiological function is related to its mucin-type character. PDPN may be involved in cell migration and/or actin cytoskeleton organization. When expressed in

keratinocytes, induces changes in cell morphology with transfected cells showing an elongated shape, numerous membrane protrusions, and major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion. It requires for normal lung cell proliferation and alveolus formation at birth and Induces platelet aggregation. Nevertheless, it doesn't have any effect on amino acid transport and the aquaporin-type water channels.

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