



Recombinant Protein Technical Manual

Recombinant Human Tie1 Protein (His Tag)

RPES2495

Product Data:

Product SKU: RPES2495

Size: 100µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_005415.1

Protein Information:

Molecular Mass: 81.4 kDa

AP Molecular Mass: 80-90 kDa

Tag: C-His

Bio-activity:

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 20 mM Tris, 0.5 M NaCl, 10 % Sucrose, pH 8.2.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Tyrosine-Protein Kinase Receptor Tie; TIE1; TIE

Immunogen Information:

Sequence: Met 1-Gln 760

Background:

Tyrosine kinase with immunoglobulin-like and EGF-like domains 1 also known as Tie1 is an angiopoietin receptor and is an orphan receptor tyrosine kinase that is expressed almost exclusively in endothelial cells and that is required for normal embryonic vascular development. The receptor tyrosine kinase Tie1 is expressed primarily in vascular endothelial cells. The receptor has also been detected in epithelial tumours in breast, thyroid and gastric cancers and in tumour cell lines where it appears as a 45 kDa truncated receptor fragment. Tie1 promotes endothelial cell survival, but other studies have suggested that the Tie1 kinase has little to no activity. Embryos deficient in Tie1 failed to establish structural integrity of vascular endothelial cells, resulting in oedema and subsequently localized haemorrhage. Tie1 is significantly higher in human aortic endothelial cells than in human umbilical vein endothelial cells. Additionally, attachment of cells of monocytic lineage to endothelial cells is also enhanced by Tie1 expression. Collectively Tie1 has a proinflammatory property and may play a role in the endothelial inflammatory diseases such as atherosclerosis.