

Recombinant Bovine Angiopoietin-2/ANG2 protein (His Tag)

Catalog Number: PDEB100009

Note: Centrifuge before opening to ensure complete recovery of vial contents.

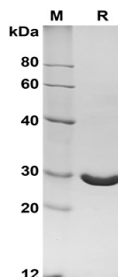
Description

Species	Bovine
Source	E.coli-derived Bovine Angiopoietin-2 protein His 19-Gln206, with an N-terminal His
Calculated MW	20.6 kDa
Observed MW	28 kDa
Accession	O77802
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, 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 a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Bovine Angiopoietin-2/ANG2 proteins, 2µg/lane of Recombinant Bovine Angiopoietin-2/ANG2 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 28 KD.

Background

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Angiopoietin-2 (Ang-2, also ANGPT2) is a secreted glycoprotein that plays a complex role in angiogenesis and inflammation. Both Ang-2 and the related Angiopoietin-1 (Ang-1) are ligands for the receptor tyrosine kinase Tie-2. While Ang-1 is a potent Tie 2 agonist, Ang-2 may act as either a Tie-2 antagonist or agonist, depending upon its state of multimerization. The higher the order of oligomer, the more effective Ang-2 becomes as a Tie-2 agonist. The short isoform appears to block the binding of either Ang-1 or full-length Ang-2 to Tie-2. Ang-2 functions as a pro-angiogenic factor, although it can also induce EC death and vessel regression. Upon its release from quiescent EC, it regulates vascular remodeling by promoting EC survival, proliferation, and migration and destabilizing the interaction between EC and perivascular cells. In addition, ANG-2 is strongly expressed in the vasculature of many tumors and it has been suggested that ANG-2 may act synergistically with other cytokines such as vascular endothelial growth factor to promote tumor-associated Angiogenesis and tumor progression.