- PRODUCT DATA SHEET -

Name of Product: Recombinant Human Cripto-1 Protein
Catalog Number: hRP-0544
Manufacturer: LD Biopharma, Inc.

Introduction

Human teratocarcinoma-derived growth factor 1 (Cripto-1) gene encodes an epidermal growth factor-related protein that contains a cripto, FRL-1, and cryptic domain. The encoded protein is an extracellular, membrane-bound signaling protein that plays an essential role in embryonic development and tumor growth. Mutations in this gene are associated with forebrain defects. Recent data indicated that human Cripto-1 protein plays a role in the determination of the epiblastic cells that subsequently give rise to the mesoderm.

Full-length mature human Cripto-1 cDNA (31-150aa, isoform-1, derived from BC067844) was constructed with codon optimization with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein was expressed in E. coli as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: Cripto-1 (TDGF1; CR; CRGF)
Accession Number: NP_003203
Species: Human
Size: 20 µg / Vial
Composition: 0.2 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Br. J. Cancer 105 (7), 1030-1038 (2011)


**Applications**

1. May be used for in vitro Cripto-1/Nodal signaling pathway regulations study for mesoderm differentiation.
3. May be used as antigen for specific antibody production.

**Quality Control**

1. Purity: > 90% by SDS-PAGE.
2. Activity: Measured by its binding ability in a functional ELSA. Immobilized recombinant human Nodal protein at 2ug/ml (100ul/well) can bind rhCripto-1 with a linear range of 0.5-100 ng/ml.

**Recombinant Protein Sequence**

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MASMTGGQQMQGRGHHHHHHGNLYFQGGEFLGHQEFAFRPSRGYLAFRDDSIPQEEPAIRPRSSQ
RVPPMGIQHSKELNRTCLNNGTMLGSFCACPSFYGRNCEHDRVKENCDSVPHDWPWLPKKCS
LCKCWHGQLRCFPQAFLPGCD
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