



**LD Biopharma, Inc.**  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human TACSTD2 Protein  
**Catalog Number:** hRP-1196  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human tumor-associated calcium signal transducer 2 (TACSTD2) gene is an intronless gene, which encodes a carcinoma-associated antigen. This antigen is a cell surface receptor that transduces calcium signals. Mutations of this gene have been associated with gelatinous drop-like corneal dystrophy.

Full-length extracellular domain of human TACSTD2 cDNA (27 – 274 aa, derived from BC009409) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** TACSTD2 (TROP2; EGP-1; GA733-1; GP50; M1S1)  
**Accession Number:** NP\_002344  
**Species:** Human  
**Size:** 25 µg / Vial  
**Composition:** 0.25 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 -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Trerotola, M., et al., *Trop-2 promotes prostate cancer metastasis by modulating beta(1) integrin functions*. Cancer Res. 73 (10), 3155-3167 (2013)



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Fang, Y.J., et al., *Different effects of ERbeta and TROP2 expression in Chinese patients with early-stage colon cancer*. *Tumour Biol.* 33 (6), 2227-2235 (2012)

Ripani, E., et al., *Human Trop-2 is a tumor-associated calcium signal transducer*. *Int. J. Cancer* 76 (5), 671-676 (1998)

## **Applications**

1. May be used for in vitro TACSTD2 protein mediated calcium related signal pathway for cancer cell growth regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used as TACSTD2 protein-protein interaction assay.
3. As enzymatic substrate for various proteases.
4. As antigen for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGHHHHHHENLYFQGGFHTAAQDNCTCPTNKMTVCSPDGPGGRCQCRA LGSG  
MAVDCSTLTSKCLLLKARMSAPKNARTLVRPSEHALVDNDGLYDPDCDPEGRFKARQCNQTSVC  
WCVNSVGVRRTDKGDLSLRCDELVRTHHILIDLRRRPTAGAFNHSDLDAELRRLFRERYRLHPK  
FVA AVHYEQPTIQIELRQNTSQKAAGDVDIGDAAYYFERDIKGESL FQGRGGLDLRVRGEPLQV  
ERTLIYYLDEI PPKFSMKRLT