



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

**Name of Product:** Recombinant Human CD89 Protein  
**Catalog Number:** hRP-1793  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human CD89 gene is a member of the immunoglobulin gene superfamily and encodes a receptor for the Fc region of IgA. The receptor is a transmembrane glycoprotein present on the surface of myeloid lineage cells such as neutrophils, monocytes, macrophages, and eosinophils, where it mediates immunologic responses to pathogens. CD89 interacts with IgA-opsonized targets and triggers several immunologic defense processes, including phagocytosis, antibody-dependent cell-mediated cytotoxicity, and stimulation of the release of inflammatory mediators. Multiple alternatively spliced transcript variants encoding different isoforms have been described for human CD89 gene.

Full-length extracellular domain of human CD89 cDNA (22 – 227 aa, derived from BC027953) was constructed with codon optimization and expressed 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. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** CD89 (FCAR; CTB-61M7.2; FcalphaRI)  
**Accession Number:** NP\_001991  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Wehrli M, et al., *Human IgA Fc receptor FcalphaRI (CD89) triggers different forms of*



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*neutrophil death depending on the inflammatory microenvironment. J. Immunol. 193 (11), 5649-5659 (2014)*

Chen X, et al., *Expression and correlation analysis of IL-4, IFN-gamma and FcalphaRI in tonsillar mononuclear cells in patients with IgA nephropathy Cell. Immunol. 289 (1-2), 70-75 (2014)*

Watanabe T, et al., *Negative regulation of inflammatory responses by immunoglobulin A receptor (FcalphaRI) inhibits the development of Toll-like receptor-9 signalling-accelerated glomerulonephritis. Clin. Exp. Immunol. 166 (2), 235-250 (2011)*

Pleass RJ, et al., *Alternative splicing of the human IgA Fc receptor CD89 in neutrophils and eosinophils. Biochem. J. 318 (PT 3), 771-777 (1996)*

## **Applications**

1. May be used for in vitro CD89 mediated IgA-opsionized targets activation in inflammation pathway regulation, with this protein either as soluble factor or as coating matrix protein.
2. May be used for protein-protein interaction mapping.
3. Potential biomarker protein for monitoring IgA mediated inflammation pathway status.
4. As immunogen for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGHHHHHHENLYFQGGEFQEGDFPMPFISAKSSPVIPLDGSVKIQCAIREAY  
LTQLMI IKNSTYREIGRRLKFWNETDPEFVIDHMDANKAGRYQCQYRIGHYRFYSDTLELVVT  
GLYGKPFSLADRGLVLMPGENISLTCSSAHIPFDRFSLAKEGELSLPQHQSSEHPANFSLGPVD  
LNVSGIYRCYGWYNRSPYLWSFPSNALELVVTDSIHQDYTTQN