



**LD Biopharma, Inc.**  
9924 Mesa Rim Road Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human BAMBI Protein  
**Catalog Number:** hRP-1201  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human BMP and Activin membrane-bound inhibitor homolog (BAMBI) gene encodes a transmembrane glycoprotein related to the type I receptors of the transforming growth factor-beta (TGF-beta) family, whose members play important roles in signal transduction in many developmental and pathological processes. The encoded protein however is a pseudoreceptor, lacking an intracellular serine/threonine kinase domain required for signaling. Similar proteins in frog, mouse and zebrafish function as negative regulators of TGF-beta, which has led to the suggestion that the encoded protein may function to limit the signaling range of the TGF-beta family during early embryogenesis.

Full-length extracellular domain of human BAMBI cDNA (21 – 152 aa) 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:** BAMBI (NMA)  
**Accession Number:** NP\_036474.1  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 1.0 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.



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## Key References

Subramaniam,N., et al., *Metformin-mediated Bambi expression in hepatic stellate cells induces prosurvival Wnt/beta-catenin signaling*. Cancer Prev Res (Phila) 5 (4), 553-561 (2012)

Luo,X., et al., *Identification of BMP and activin membrane-bound inhibitor (BAMBI) as a potent negative regulator of adipogenesis and modulator of autocrine/paracrine adipogenic factors*. Diabetes 61 (1), 124-136 (2012)

Wanninger,J., et al., *Adiponectin induces the transforming growth factor decoy receptor BAMBI in human hepatocytes*. FEBS Lett. 585 (9), 1338-1344 (2011)

## Applications

1. May be used for in vitro BAMBI protein mediated Wnt / b-catenin pathway regulation for either adipocytes or hepatocytes differentiation study with this protein as either coating matrix protein or soluble factor.
2. May be used for BAMBI 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

MASMTGGQQMGRGHHHHHENLYFQGGEFVLLTKGEIRCYCDAAHCVATGYMCKSELSACFSRL  
LDPQNSNSPLTHGCLDSLASTTDICQAKQARNHSGTTIPTLECCHEDMCNRYRGLHDVLSPPRGE  
ASGQGNRYQHDGSRNLIITKVQELTSSKELWFRA