

Recombinant Human Grancalcin, EF-hand Calcium Binding Protein, His-tagged

Cat. No. GCA-6903H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GCA protein, fused to His-tag at N-terminus, was expressed in <i>E. coli</i> and purified by using conventional chromatography. MW: 26.1 kDa.
Species	Human
Source	<i>E. coli</i>
ProteinLength	1-217aa
Description	GCA, also known as Grancalcin, is calcium-binding protein that is especially abundant in human neutrophils. It belongs to the penta EF-hand (PEF) subfamily of EF-hand proteins, which also comprises calpain, sorcin, peflin, and ALG-2. This protein undergoes important conformational changes upon binding of calcium, which subsequently exposes hydrophobic amino acid residues, which direct the protein to hydrophobic surfaces. It interacts with L-plastin, a protein known to have actin bundling activity, which suggests that GCA may play a role in the regulation of neutrophils adhesion.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol 0.1M NaCl.
Molecular Mass	26.1 kDa (237aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SGLVPRGSH MAYPGYGGGF GNFS IQVPGM QMGQPVPETG PAILLDGYSG PAYSPTYSSA GDSVYTYFSA VAGQDGEVDA EELQRCLTQS

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GINGTYSPTS LETCRIMIAM LDRDHTGKMG FNAFKELWAA LNAWKENFMT
 VDQDGSSTVE HHELQRQAIGL MGYRLSPQTL TTIVKRYSKN GRIFFDDYVA
 CCVKLRALTD FFRKRDHLQQ GSANFIYDDF LQGTMAI

Purity >95% by SDS-PAGE

Applications SDS-PAGE

Storage Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Concentration 1.0 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [GCA grancalcin, EF-hand calcium binding protein \[Homo sapiens \]](#)

Official Symbol GCA

Synonyms GCA; grancalcin, EF-hand calcium binding protein; grancalcin, EF hand calcium binding protein; grancalcin; GCL; grancalcin, penta-EF-hand protein; grancalcin, EF-hand calcium-binding protein;

Gene ID [25801](#)

mRNA Refseq [NM_012198](#)

Protein Refseq [NP_036330](#)

MIM [607030](#)

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UniProt ID	P28676
Chromosome Location	2p14-q14.3
Function	calcium ion binding; protein homodimerization activity;

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