

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

**Cat. No.** GCA-4382H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	GCA produced in E.Coli is a single, non-glycosylated polypeptide chain containing 237 amino acids (1-217.a.) and having a molecular mass of 26.1kDa. GCA is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.
<b>Species</b>	Human
<b>Source</b>	Human
<b>ProteinLength</b>	1-217 a.a.
<b>Description</b>	GCA is calcium-binding protein which is particularly abundant in human neutrophils. GCA is a member of the penta EF-hand (PEF) subfamily of EF-hand proteins, who also comprises calpain, sorcin, peflin, and ALG-2. GCA undergoes essential conformational changes upon binding of calcium, which subsequently exposes hydrophobic amino acid residues, that direct the protein to hydrophobic surfaces. GCA cooperates with L-plastin, a protein known to have actin bundling activity, which suggests that GCA has a part in the regulation of neutrophils adhesion.
<b>Form</b>	The GCA protein solution (1mg/1ml) is formulated in 20mM Tris-HCl buffer (pH8.0) 0.1M NaCl and 20% glycerol.
<b>Purity</b>	Greater than 95% as determined by SDS-PAGE.

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Physical Appearance</b>	Sterile Filtered clear solution.
<b>Amino acid sequence</b>	MGSSHHHHHH SSGLVPRGSH MAYPGYGGGF GNFSIQVPGM QMGQPVPETG PAILLDGYSG PAYSPTYSSA GDSVYTYFSA VAGQDGEVDA EELQRCLTQS GINGTYSPTS LETCRIMIAM LDRDHTGKMG FNAFKELWAA LNAWKENFMT VDQDGSSTVE HHELRAIGL MGYRLSPQTL TTIVKRYSKN GRIFFDDYVA CCVKLRALTD FFRKRDHLQQ GSANFIYDDF LQGTMAI
<b>Storage</b>	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Please avoid freeze thaw cycles.
<b>Pathways</b>	Insulin signaling pathway; mTOR signaling pathway

## GENE INFORMATION

<b>Gene Name</b>	GCA grancalcin, EF-hand calcium binding protein [ Homo sapiens ]
<b>Official Symbol</b>	GCA
<b>Synonyms</b>	GCA; grancalcin, EF-hand calcium binding protein; GCL; grancalcin; OTTHUMP00000204639; OTTHUMP00000204640; grancalcin, penta-EF-hand protein; grancalcin, EF-hand calcium-binding protein
<b>Gene ID</b>	25801
<b>mRNA Refseq</b>	NM_012198
<b>Protein Refseq</b>	NP_036330
<b>MIM</b>	607030

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<b>UniProt ID</b>	P28676
<b>Chromosome Location</b>	2q37.1
<b>Function</b>	calcium ion binding; protein homodimerization activity

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