


## Product datasheet

# Anti-GBF1 antibody - N-terminal ab155481

[3 Images](#)

### Overview

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<b>Product name</b>	Anti-GBF1 antibody - N-terminal
<b>Description</b>	Rabbit polyclonal to GBF1 - N-terminal
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Recombinant fragment corresponding to a region within N-terminal amino acids 1-193 of Human GBF1 (Uniprot ID: Q92538).
<b>Positive control</b>	A549, HeLa and HepG2 whole cell lysates. HeLa cells. Human normal colon tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 78.99% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

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**The Abpromise guarantee**

Our **Abpromise guarantee** covers the use of ab155481 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 206 kDa.
IHC-P		1/100 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Antigen retrieval also possible using Tris-EDTA buffer (pH8.0).
ICC/IF		1/100 - 1/1000.

**Target****Function**

Guanine-nucleotide exchange factor (GEF) for members of the Arf family of small GTPases involved in trafficking in the early secretory pathway; its GEF activity initiates the coating of nascent vesicles via the localized generation of activated ARFs through replacement of GDP with GTP. Recruitment to cis-Golgi membranes requires membrane association of Arf-GDP and can be regulated by ARF1, ARF3, ARF4 and ARF5. Involved in the recruitment of the COPI coat complex to the endoplasmic reticulum exit sites (ERES), and the endoplasmic reticulum-Golgi intermediate (ERGIC) and cis-Golgi compartments which implicates ARF1 activation. Involved in COPI vesicle-dependent retrograde transport from the ERGIC and cis-Golgi compartments to the endoplasmic reticulum (ER) (PubMed:16926190, PubMed:17956946, PubMed:18003980, PubMed:12047556, PubMed:12808027, PubMed:19039328, PubMed:24213530). Involved in the trans-Golgi network recruitment of GGA1, GGA2, GGA3, BIG1, BIG2, and the AP-1 adaptor protein complex related to clathrin-dependent transport; the function requires its GEF activity (probably at least in part on ARF4 and ARF5) (PubMed:23386609). Has GEF activity towards ARF1 (PubMed:15616190). Has in vitro GEF activity towards ARF5 (By similarity). Involved in the processing of PSAP (PubMed:17666033). Required for the assembly of the Golgi apparatus (PubMed:12808027, PubMed:18003980). The AMPK-phosphorylated form is involved in Golgi disassembly during mitosis and under stress conditions (PubMed:18063581, PubMed:23418352). May be involved in the COPI vesicle-dependent recruitment of PNPLA2 to lipid droplets; however, this function is under debate (PubMed:19461073, PubMed:22185782). In neutrophils, involved in G protein-coupled receptor (GPCR)-mediated chemotaxis and superoxide production. Proposed to be recruited by phosphatidylinositol-phosphates generated upon GPCR stimulation to the leading edge where it recruits and activates ARF1, and is involved in recruitment of GIT2 and the NADPH oxidase complex (PubMed:22573891).

**Tissue specificity**

Ubiquitous.

**Sequence similarities**

Contains 1 SEC7 domain.

**Domain**

The DCB (dimerization and cyclophilin-binding) and HUS (homology upstream of Sec7) domains are necessary for dimerization. The DCB domain is proposed to support constitutive homodimerization; the HUS domain interacts with the DCB domain which may occur intramolecular or intermolecular.

**Post-translational modifications**

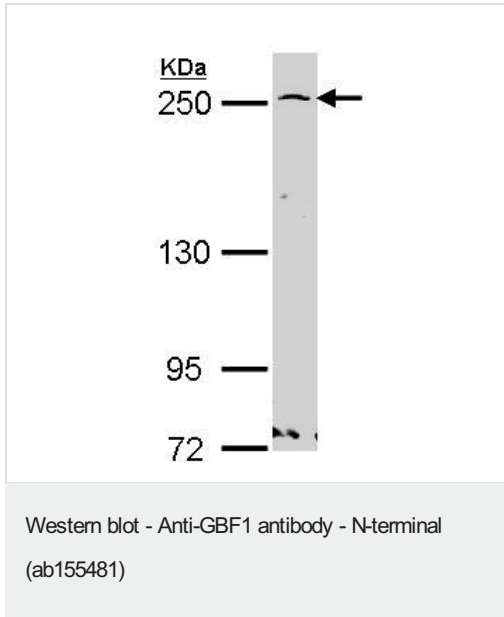
AMPK-mediated phosphorylation at Thr-1337 is induced by 2-deoxyglucose (2-DG) and AICA ribonucleotide, and occurs during mitosis leading to membrane disassociation and inactivation of ARF1 during mitosis.

**Cellular localization**

Golgi apparatus, cis-Golgi network. Endoplasmic reticulum-Golgi intermediate compartment. Golgi apparatus, trans-Golgi network. Cytoplasm. Lipid droplet. Membrane. Cycles rapidly on and

off early Golgi membranes (PubMed:15616190). Stabilized on membranes when complexed with ARF1-GDP and is released from both ARF1 and membranes after it catalyzes GDP displacement and ARF1 binds GTP. Continuous cycles of recruitment and dissociation of GBF1 to membranes are required for sustained ARF activation and COP I recruitment (PubMed:15813748). In neutrophils is translocated from the Golgi to the leading edge upon GPCR stimulation (PubMed:22573891). Localization to lipid droplets is questionable (PubMed:22185782).

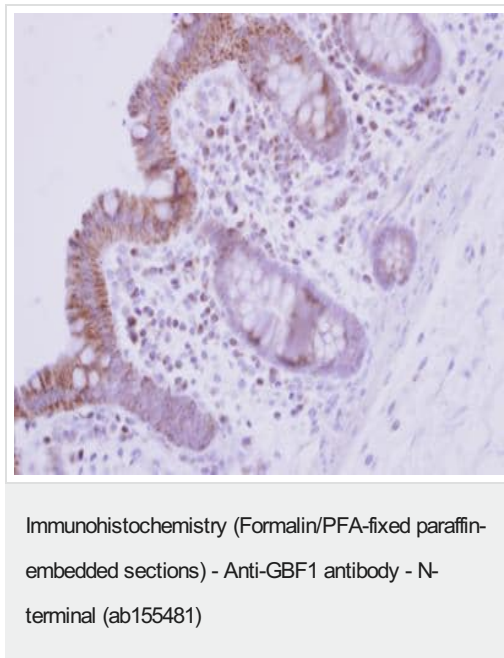
## Images



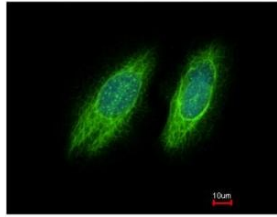
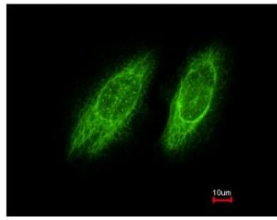
Anti-GBF1 antibody - N-terminal (ab155481) at 1/1000 dilution +  
HeLa whole cell lysate at 30  $\mu$ g

**Predicted band size:** 206 kDa

5% SDS PAGE



Immunohistochemical analysis of paraffin-embedded Human normal colon tissue, labeling GBF1 using ab155481 at a 1/500 dilution.



Immunofluorescence analysis of methanol-fixed HeLa cells, labeling GBF1 using ab155481 at a 1/200 dilution. The image in the lower panel was costained with Hoechst 33342.

Immunocytochemistry/ Immunofluorescence - Anti-GBF1 antibody - N-terminal (ab155481)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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