abcam

ab323813

Anti-GC-C antibody [EPR29752-507] - BSA and Azide free

Recombinant | RabMAb | Advanced Validation

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR29752-507
Purification technique	Affinity purification Protein A
Concentration	0.983 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Dot

Tested

Species	Recombinant full length protein - Human
Dilution info	-

Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Recombinant full length protein - Human
Dilution info	-
Notes	-

mIHC

Tested

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information GUCY2C

Function

Guanylyl cyclase that catalyzes synthesis of cyclic GMP (cGMP) from GTP (PubMed:11950846, PubMed:1718270, PubMed:22436048, PubMed:22521417, PubMed:23269669). Receptor for the E.coli heat-stable enterotoxin; E.coli enterotoxin markedly stimulates the accumulation of cGMP in mammalian cells expressing GUCY2C (PubMed:1680854, PubMed:1718270). Also activated by the endogenous peptides guanylin and uroguanylin (PubMed:8381596).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C

Notes

ab323813 is the carrier free version of ab323804.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

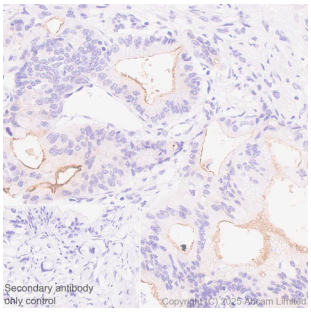
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

---

9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human pancreatic cancer tissue using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human pancreatic cancer tissue labeling GC-C with ab323804 at 1/100 (5.01 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

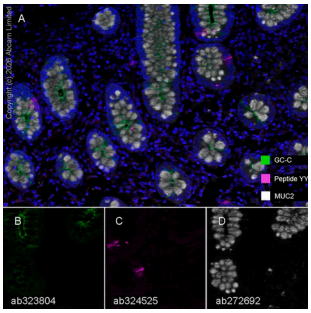
Positive staining on human pancreatic cancer.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

---



Multiplex immunohistochemistry - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Multiplex immunohistochemistry staining of Human colon using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.
Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human colon tissue staining GC-C with ab323804 at a 1/100 dilution, ab324525 anti-Peptide YY used at 1/2000 dilution and ab272692 anti-MUC2 used at a 1/2000 dilution.

Panel A: anti-GC-C (green; Opal™520), anti-Peptide YY (magenta; Opal™690) and anti-MUC2 (gray; Opal™570) on human colon.

Panel B: anti-GC-C staining apical membrane of epithelium in human colon.

Panel C: anti-Peptide YY staining enteroendocrine cells in human colon.

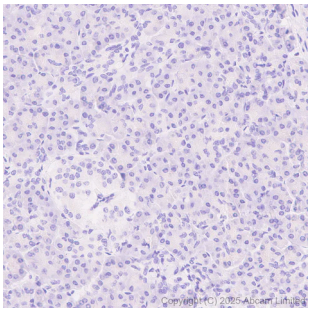
Panel D: anti-MUC2 staining goblet cells in human colon.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab323804, ab324525 and ab272692 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human pancreas tissue using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

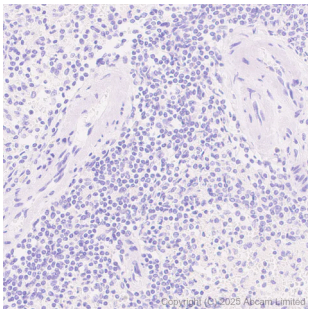
Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling GC-C with ab323804 at 1/100 (5.01 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining on human pancreas.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human spleen tissue using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

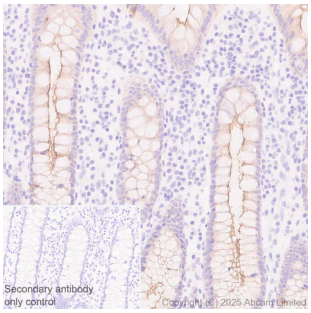
Immunohistochemical analysis of paraffin-embedded Human spleen tissue labeling GC-C with ab323804 at 1/100 (5.01 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining on human spleen.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human colon tissue using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

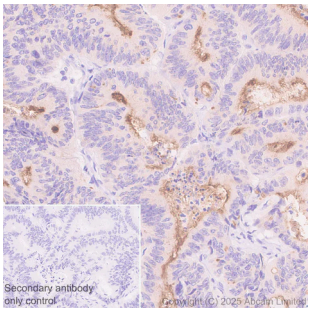
Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling GC-C with ab323804 at 1/100 (5.01 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human colon.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human colon carcinoma tissue using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

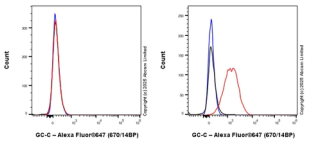
Immunohistochemical analysis of paraffin-embedded Human colon carcinoma tissue labeling GC-C with ab323804 at 1/100 (5.01 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human colon carcinoma (PMID: 29261789).
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



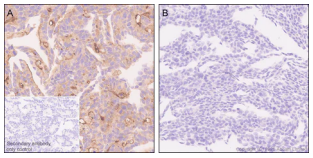
Flow Cytometry - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Flow Cytometry staining using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of HCT 116 (human colorectal carcinoma epithelial cell, Left) / T84 (human colon epithelial cell, Right) cells labeling GC-C with ab323804 at 1/500 dilution (0.1 ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 647, ab150083) at 1/5000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

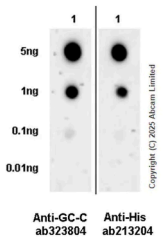
Immunohistochemical analysis of paraffin-embedded (A) T84 (human colon epithelial cell) cell pellet. (B) HCT116 (Human colorectal carcinoma epithelial cell) cell pellet. tissue labeling GC-C with ab323804 at 1/100 (5.01 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on (A) T84 cell pellet, no staining on (B) HCT116 cell pellet.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Dot Blot - Anti-GC-C antibody [EPR29752-507] - BSA and Azide free (ab323813)

GC-C Dot Blot staining of His-tagged human GC-C recombinant protein using rabbit Anti-GC-C antibody

This data was developed using ab323804, the same antibody clone in a different buffer formulation.

Dot blot analysis of GC-C using ab323804 at 1:1000 (0.501 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution.

Lane1: His-tagged human GC-C recombinant protein

Exposure time: 180 seconds.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Dot Blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.
All lanes:
Dot Blot - Anti-GC-C antibody [EPR29752-507] (ab323804) at 1/1000 dilution

All lanes:
His-tagged human GC-C recombinant protein

Secondary

All lanes:
Dot Blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Exposure time: 180s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.