

Product datasheet

Anti-MGEA5/OGA antibody [EPR7154(B)] - BSA and Azide free ab227989

KO VALIDATED Recombinant RabMAb

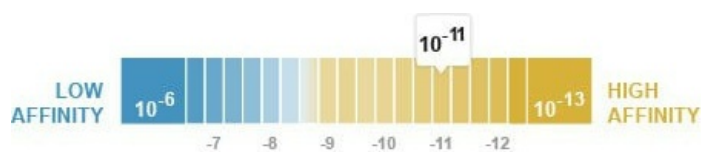
[1 References](#) [6 Images](#)

Overview

Product name	Anti-MGEA5/OGA antibody [EPR7154(B)] - BSA and Azide free
Description	Rabbit monoclonal [EPR7154(B)] to MGEA5/OGA - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: IP, IHC-P, WB Unsuitable for: Flow Cyt or ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as ab155521)
Positive control	IHC-P: Human kidney and colon tissues. IP: HeLa cells. WB: HeLa, JAR, and HEK-293T cell lysates.
General notes	<p>ab227989 is the carrier-free version of ab124807.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	K _D = 9.80 x 10 ⁻¹¹ M



[Learn more about K_D](#)

Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7154(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab227989 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
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 130 kDa (predicted molecular weight: 102 kDa).

Application notes Is unsuitable for Flow Cyt or ICC/IF.

Target

Function	<p>Isoform 1: Cleaves GlcNAc but not GalNAc from O-glycosylated proteins. Can use p-nitrophenyl-beta-GlcNAc and 4-methylumbelliferone-GlcNAc as substrates but not p-nitrophenyl-beta-GalNAc or p-nitrophenyl-alpha-GlcNAc (in vitro) (PubMed:11148210). Does not bind acetyl-CoA and does not have histone acetyltransferase activity (PubMed:24088714).</p> <p>Isoform 3: Cleaves GlcNAc but not GalNAc from O-glycosylated proteins. Can use p-nitrophenyl-beta-GlcNAc as substrate but not p-nitrophenyl-beta-GalNAc or p-nitrophenyl-alpha-GlcNAc (in vitro), but has about six times lower specific activity than isoform 1.</p>
Tissue specificity	Ubiquitous. Shows highest expression in the brain, placenta and pancreas.
Sequence similarities	Belongs to the glycosyl hydrolase 84 family.
Post-translational	Proteolytically cleaved by caspase-3 during apoptosis. The fragments interact with each other;

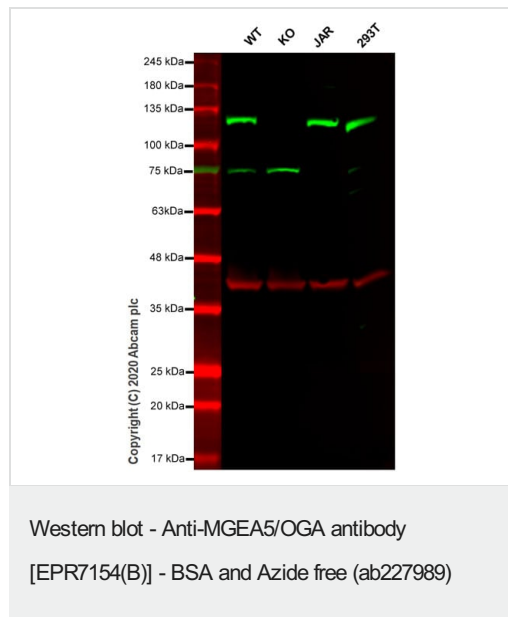
modifications

cleavage does not decrease enzyme activity.

Cellular localization

Cytoplasm and Nucleus.

Images



All lanes : Anti-MGEA5/OGA antibody [EPR7154(B)] ([ab124807](#))

at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : MGEA5 knockout HeLa cell lysate

Lane 3 : JAR cell lysate

Lane 4 : HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

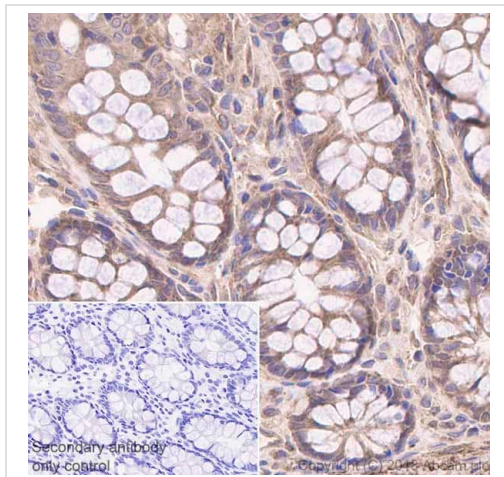
Predicted band size: 102 kDa

Observed band size: 130 kDa

This data was developed using the same antibody clone in a different buffer formulation ([ab124807](#)).

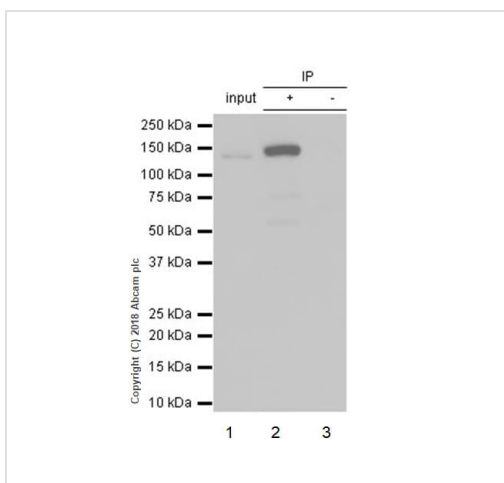
Lanes 1-4: Merged signal (red and green). Green - [ab124807](#) observed at 130 kDa. Red - loading control, [ab8245](#) observed at 37 kDa.

[ab124807](#) Anti-MGEA5/OGA antibody [EPR7154(B)] was shown to specifically react with MGEA5/OGA in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab265821](#) (knockout cell lysate [ab257263](#)) was used. Wild-type and MGEA5/OGA knockout samples were subjected to SDS-PAGE. [ab124807](#) and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



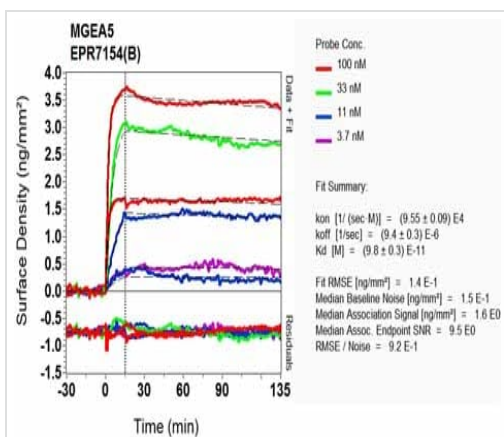
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MGEA5/OGA antibody [EPR7154(B)] - BSA and Azide free (ab227989)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling MGEA5/OGA with purified [ab124807](#) at 1:50 dilution (12.56 µg/ml). Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunoprecipitation - Anti-MGEA5/OGA antibody [EPR7154(B)] - BSA and Azide free (ab227989)

[ab124807](#) (purified) at 1:30 dilution (2µg) immunoprecipitating MGEA5/OGA in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): [ab124807](#) & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of [ab124807](#) in HeLa whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDm/TBST.



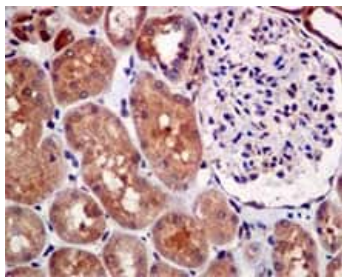
OL-RD Scanning - Anti-MGEA5/OGA antibody [EPR7154(B)] - BSA and Azide free (ab227989)

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab124807](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MGEA5/OGA antibody [EPR7154(B)] - BSA and Azide free (ab227989)

This IHC data was generated using the same anti-MGEA5/OGA antibody clone, EPR7154(B), in a different buffer formulation (cat# **ab124807**).

ab124807, at 1/100 dilution, staining MGEA5 in paraffin-embedded Human kidney tissue by Immunohistochemistry.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-MGEA5/OGA antibody [EPR7154(B)] - BSA and Azide free (ab227989)

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

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