


Alexa Fluor® 405 Anti-Calreticulin antibody [EPR3924] - ER Marker ab210431

KO **VALIDATED** **Recombinant** **RabMAb**

[3 References](#) [3 Images](#)

Overview

Product name	Alexa Fluor® 405 Anti-Calreticulin antibody [EPR3924] - ER Marker
Description	Alexa Fluor® 405 Rabbit monoclonal [EPR3924] to Calreticulin - ER Marker
Host species	Rabbit
Conjugation	Alexa Fluor® 405. Ex: 402nm, Em: 421nm
Tested applications	Suitable for: Flow Cyt (Intra)
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Monkey 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Flow Cyt (intra): HeLa cells. HAP1-WT cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA, 30% Glycerol (glycerin, glycerine)
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3924
Isotype	IgG

Applications

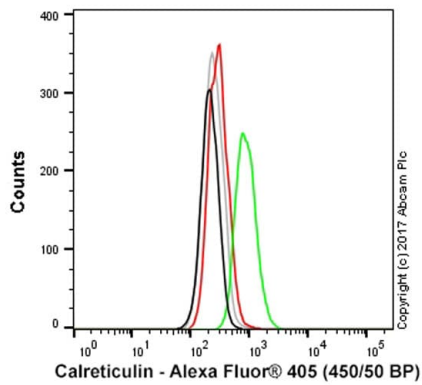
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab210431 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/50.

Target

Function	Molecular calcium-binding chaperone promoting folding, oligomeric assembly and quality control in the ER via the calreticulin/calnexin cycle. This lectin interacts transiently with almost all of the monoglucosylated glycoproteins that are synthesized in the ER. Interacts with the DNA-binding domain of NR3C1 and mediates its nuclear export.
Sequence similarities	Belongs to the calreticulin family.
Domain	Can be divided into a N-terminal globular domain, a proline-rich P-domain forming an elongated arm-like structure and a C-terminal acidic domain. The P-domain binds one molecule of calcium with high affinity, whereas the acidic C-domain binds multiple calcium ions with low affinity. The interaction with glycans occurs through a binding site in the globular lectin domain. The zinc binding sites are localized to the N-domain. Associates with PDIA3 through the tip of the extended arm formed by the P-domain.
Cellular localization	Endoplasmic reticulum lumen. Cytoplasm > cytosol. Secreted > extracellular space > extracellular matrix. Cell surface. Also found in cell surface (T cells), cytosol and extracellular matrix. Associated with the lytic granules in the cytolytic T-lymphocytes.

Images

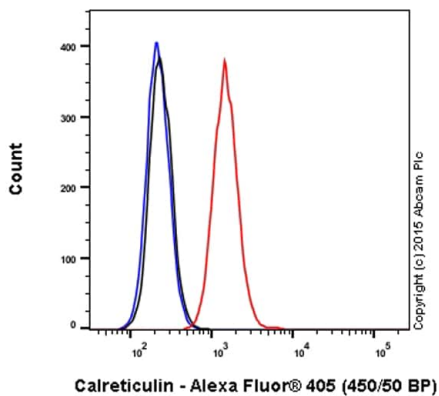


Flow Cytometry (Intracellular) - Alexa Fluor® 405
Anti-Calreticulin antibody [EPR3924] - ER Marker
(ab210431)

Overlay histogram showing HAP1 wildtype (green line) and HAP1-CARL knockout cells (red line) stained with ab210431. The cells were fixed with 80% methanol (5 min), and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab210431, 10µg/ml dilution) for 30 min at 22°C.

A rabbit monoclonal IgG isotype control antibody (**ab208150**) was used at the same concentration and conditions as the primary antibody (HAP1 wildtype - black line, HAP1-CARL knockout - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity).

Acquisition of >5,000 events were collected using a 50 mW Violet laser (405nm) and 450/50 bandpass filter.



Flow Cytometry (Intracellular) - Alexa Fluor® 405
Anti-Calreticulin antibody [EPR3924] - ER Marker
(ab210431)

Overlay histogram showing HeLa cells stained with ab210431 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min, blocked with Image-iT® FX Signal Enhancer for 30 min at 22°C and then blocked with 1x PBS / 10% normal goat serum for 1 hr at 22°C. Cells were then incubated with the antibody (ab210431, 1/50 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was rabbit IgG (monoclonal) Alexa Fluor® 405 (**ab208150**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50mW violet laser (405nm) and 450/50 bandpass filter.

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

Alexa Fluor® 405 Anti-Calreticulin antibody

[EPR3924] - ER Marker (ab210431)

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

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