

### Anti-VCP antibody [EPR3307(2)] - BSA and Azide free ab184905

リコンビナント **RabMAb**

画像数 8

#### 製品の概要

製品名	Anti-VCP antibody [EPR3307(2)] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EPR3307(2)] to VCP - BSA and Azide free
由来種	Rabbit
アプリケーション	<b>適用あり:</b> ICC/IF, IHC-P, Flow Cyt (Intra), IP, WB
種交差性	<b>交差種:</b> Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
特記事項	<p>ab184905 is the carrier-free version of <a href="#">ab109240</a>.</p> <p>Our <b>carrier-free</b> 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 <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;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<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
バッファー	pH: 7.2 Constituent: PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR3307(2)
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee      **Abpromise保証は、次のテスト済みアプリケーションにおけるab184905の使用に適用されます**  
 アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol. See <b><u>IHC antigen retrieval protocols</u></b> .
Flow Cyt (Intra)		Use at an assay dependent concentration. <b><u>ab199376</u></b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 89 kDa.

ターゲット情報

機能	Necessary for the fragmentation of Golgi stacks during mitosis and for their reassembly after mitosis. Involved in the formation of the transitional endoplasmic reticulum (tER). The transfer of membranes from the endoplasmic reticulum to the Golgi apparatus occurs via 50-70 nm transition vesicles which derive from part-rough, part-smooth transitional elements of the endoplasmic reticulum (tER). Vesicle budding from the tER is an ATP-dependent process. The ternary complex containing UFD1L, VCP and NPLOC4 binds ubiquitinated proteins and is necessary for the export of misfolded proteins from the ER to the cytoplasm, where they are degraded by the proteasome. The NPLOC4-UFD1L-VCP complex regulates spindle disassembly at the end of mitosis and is necessary for the formation of a closed nuclear envelope (By similarity). Regulates E3 ubiquitin-protein ligase activity of RNF19A.
関連疾患	Defects in VCP are the cause of inclusion body myopathy with early-onset Paget disease and frontotemporal dementia (IBMPFD) [MIM:167320]; also known as muscular dystrophy, limb-girdle,

with Paget disease of bone or pagetoid amyotrophic lateral sclerosis or pagetoid neuroskeletal syndrome or lower motor neuron degeneration with Paget-like bone disease. IBMPFD features adult-onset proximal and distal muscle weakness (clinically resembling limb girdle muscular dystrophy), early-onset Paget disease of bone in most cases and premature frontotemporal dementia.

#### 配列類似性

Belongs to the AAA ATPase family.

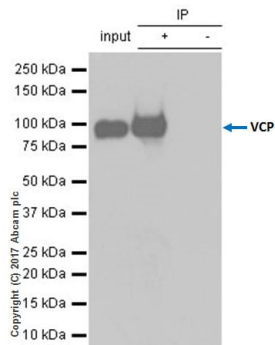
#### 翻訳後修飾

Phosphorylated by tyrosine kinases in response to T-cell antigen receptor activation (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR. ISGylated.

#### 細胞内局在

Cytoplasm > cytosol. Nucleus. Present in the neuronal hyaline inclusion bodies specifically found in motor neurons from amyotrophic lateral sclerosis patients. Present in the Lewy bodies specifically found in neurons from Parkinson disease patients.

#### 画像



Immunoprecipitation - Anti-VCP antibody  
[EPR3307(2)] - BSA and Azide free (ab184905)

**ab109240** (purified) at 1:20 dilution (2ug) immunoprecipitating VCP in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate.

**Lane 1 (input):** HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10ug

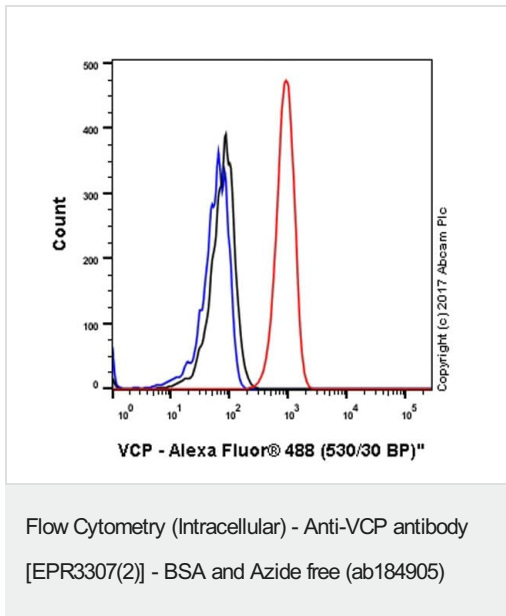
**Lane 2 (+):** **ab109240** & HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 3 (-):** Rabbit monoclonal IgG (**ab172730**) instead of **ab109240** in HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.

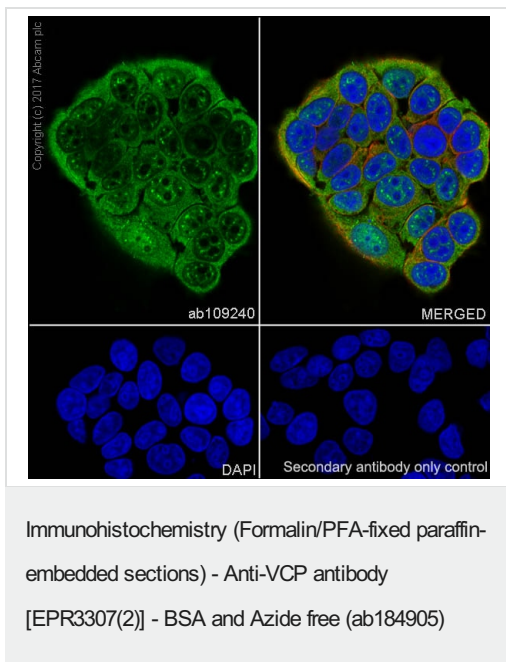
Blocking and diluting buffer: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109240**).



Intracellular Flow Cytometry analysis of HL-60 (Human acute promyelocytic leukemia promyeloblast) cells labeling VCP with purified **ab109240** at 1/300 dilution (1 ug/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - 90% methanol. Unlabeled control - Rabbit monoclonal IgG (Black). Cell without incubation with primary antibody and secondary antibody (Blue).

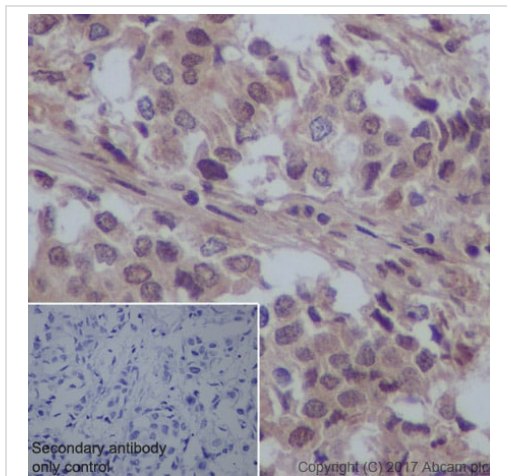
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109240**).



Immunocytochemistry/ Immunofluorescence analysis of MCF-7 (Human breast adenocarcinoma epithelial cell) cells labeling VCP with Purified **ab109240** at 1:500 dilution (0.7 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109240**).

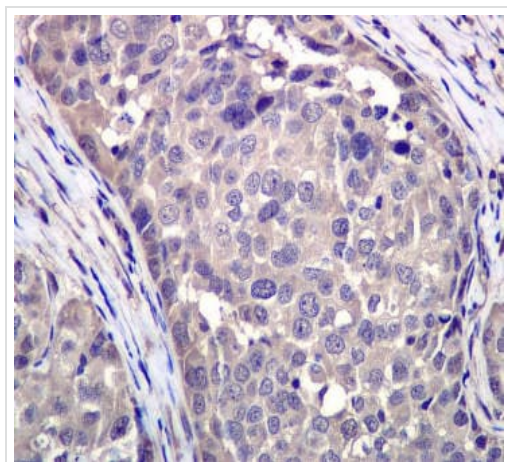
Heat mediated antigen retrieval was performed via the pressure cooker method before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VCP antibody  
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast carcinoma tissue sections labeling VCP with purified **ab109240** at 1:250 dilution (1.4 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, pH9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109240**).

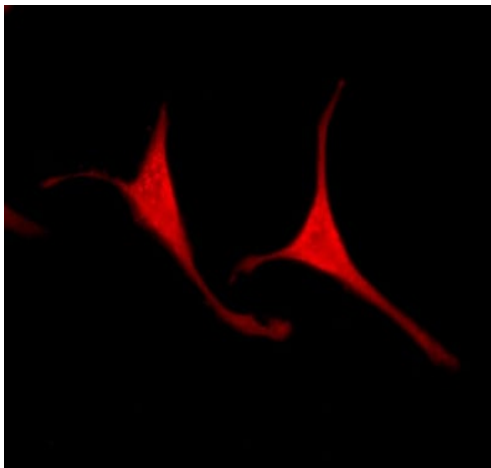


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VCP antibody  
[EPR3307(2)] - BSA and Azide free (ab184905)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using unpurified **ab109240** at 1/100 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109240**).

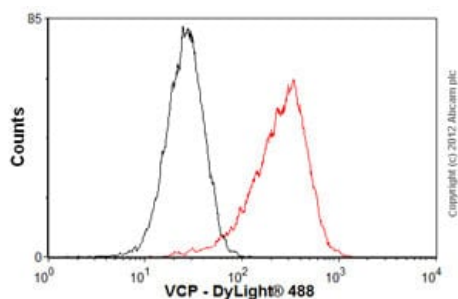
Heat mediated antigen retrieval was performed via the pressure cooker method before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-VCP antibody [EPR3307(2)] - BSA and Azide free (ab184905)

Immunofluorescent staining of HeLa cells using unpurified **ab109240** at 1/100 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109240**).



Flow Cytometry (Intracellular) - Anti-VCP antibody [EPR3307(2)] - BSA and Azide free (ab184905)

Overlay histogram showing HL60 cells stained with unpurified **ab109240** (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab109240**, 1/100) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HL60 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109240**).

### 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

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