abcam

Product datasheet

Anti-AS160 (phospho T642) antibody [EPR2733(2)] ab131214

Recombinant RabMAb

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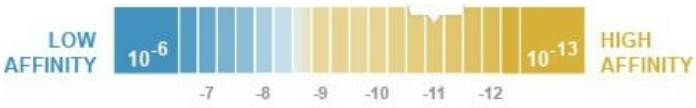
Overview

Product name	Anti-AS160 (phospho T642) antibody [EPR2733(2)]
Description	Rabbit monoclonal [EPR2733(2)] to AS160 (phospho T642)
Host species	Rabbit
Tested applications	**Suitable for:** Dot blot, WB **Unsuitable for:** Flow Cyt,ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human AS160 (phospho T642). The exact sequence is proprietary. Database link: **O60343**
Positive control	WB: HEK-293 grown in serum free media overnight, then treated with 100nM Calyculin A (**ab141784**) for 50min and then 100ng/ml Insulin was added for the last 20min, whole cell lysate and 293T cell lysate - insulin-treated. Dot Blot: AS160 (phospho T642) phospho peptide.
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	K_D = 6.40 x 10^{-11} M

10^{-11}



Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2733(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab131214 in the following tested applications.

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

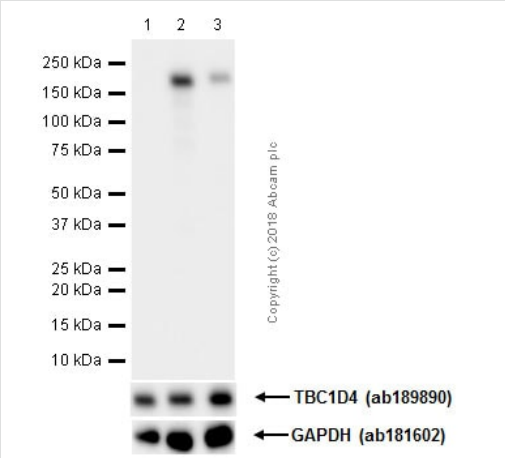
Application	Abreviews	Notes
Dot blot		1/1000.
WB	★★★★★ (2)	1/1000 - 1/10000. Predicted molecular weight: 146 kDa.

Application notes Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

Target

Function	May act as a GTPase-activating protein for RAB2A, RAB8A, RAB10 and RAB14. Isoform 2 promotes insulin-induced glucose transporter SLC2A4/GLUT4 translocation at the plasma membrane, thus increasing glucose uptake.
Tissue specificity	Widely expressed. Isoform 2 is the highest overexpressed in most tissues. Isoform 1 is highly expressed in skeletal muscle and heart, but was not detectable in the liver nor in adipose tissue. Isoform 2 is strongly expressed in adrenal and thyroid gland, and also in lung, kidney, colon, brain and adipose tissue. Isoform 2 is moderately expressed in skeletal muscle. Expressed in pancreatic Langerhans islets, including beta cells (at protein level). Expression is decreased by twofold in pancreatic islets in type 2 diabetes patients compared to control subjects. Up-regulated in T cells from patients with atopic dermatitis.
Sequence similarities	Contains 2 PID domains. Contains 1 Rab-GAP TBC domain.
Post-translational modifications	Phosphorylated by AKT1; insulin-induced. Insulin-stimulated phosphorylation is required for SLC2A4/GLUT4 translocation. Physiological hyperinsulinemia increases phosphorylation in skeletal muscle. Insulin-stimulated phosphorylation is reduced by 39% in type 2 diabetic patients.
Cellular localization	Cytoplasm. Isoform 2 shows a cytoplasmic perinuclear localization in a myoblastic cell line in resting and insulin-stimulated cells.

Images



Western blot - Anti-AS160 (phospho T642) antibody [EPR2733(2)] (ab131214)

All lanes : Anti-AS160 (phospho T642) antibody [EPR2733(2)] (ab131214) at 1.12 µg/ml

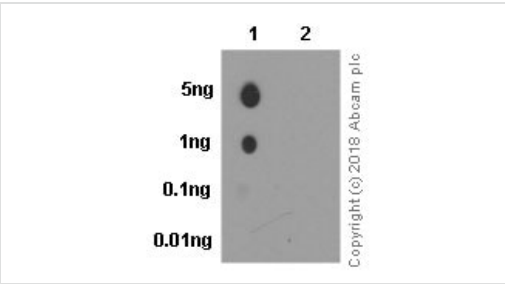
Lane 1 : HEK-293 (human embryonic kidney epithelial cell) grown in serum free media overnight whole cell lysate
Lane 2 : HEK-293 grown in serum free media overnight, then treated with 100nM Calyculin A (**ab141784**) for 50min and then 100ng/ml Insulin was added for the last 20min, whole cell lysate
Lane 3 : HEK-293 grown in serum free media overnight, then treated with 100nM Calyculin A (**ab141784**) for 50min and then 100ng/ml Insulin was added for the last 20min, whole cell lysate. Then the membrane was incubated with alkaline phosphatase

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 146 kDa

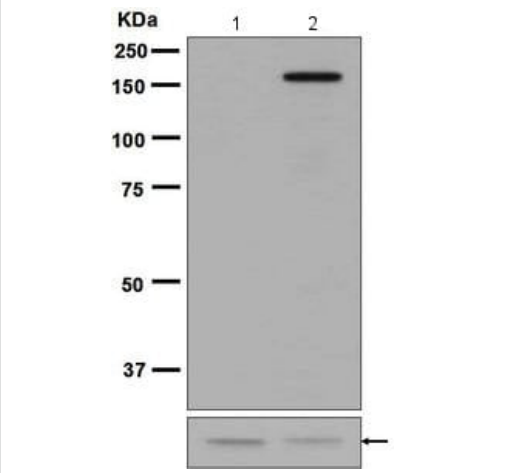
Blocking and diluting buffer: 5% NFDM/TBST.



Dot Blot - Anti-AS160 (phospho T642) antibody [EPR2733(2)] (ab131214)

Dot blot analysis of AS160 (phospho T642) phospho peptide (Lane 1) and AS160 non-phospho peptide (Lane 2) labelling AS160 (phospho T642) phospho peptide with ab131214 at a dilution of 1:1000 dilution (1.12µg/ml). A Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) was used as the secondary antibody at a dilution of 1:20,000 dilution.

Blocking and dilution buffer: 5% NFDM/TBST.



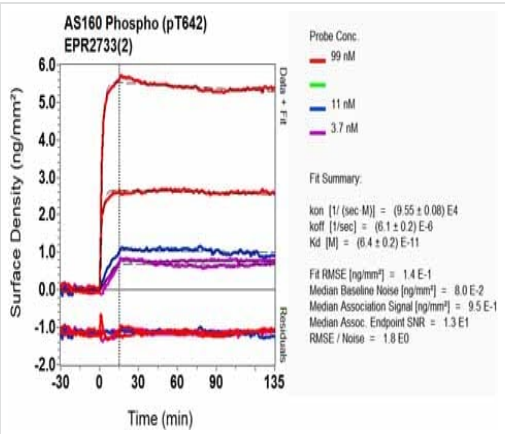
Western blot - Anti-AS160 (phospho T642) antibody [EPR2733(2)] (ab131214)

All lanes : Anti-AS160 (phospho T642) antibody [EPR2733(2)] (ab131214) at 1/1000 dilution

Lane 1 : 293T cell lysate - untreated
Lane 2 : 293T cell lysate - insulin-treated

Predicted band size: 146 kDa

Bottom pannel shows detection of total AS160 with a general anti AS160 antibody.

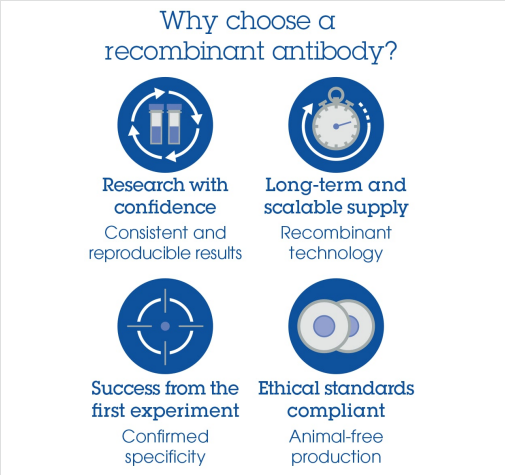


OI-RD Scanning - Anti-AS160 (phospho T642) antibody [EPR2733(2)] (ab131214)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



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(ab131214)

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