# abcam

# Product datasheet

# Anti-Kappa Opioid Receptor antibody ab113533

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Overview

Product name Anti-Kappa Opioid Receptor antibody

**Description** Rabbit polyclonal to Kappa Opioid Receptor

Host species Rabbit

Tested applications Suitable for: IHC-P, WB, ICC/IF

Species reactivity Reacts with: Human

Predicted to work with: Rabbit, Chimpanzee, Macaque monkey, Gorilla, Orangutan

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control

This antibody gave a positive signal in HEK293 whole cell lysates as well as the following Human

tissue lysates: Brain; Spinal Cord; Placenta; Small Intestine. This antibody gave a positive result in IF in the following Formaldehyde fixed cell line: SKNSH This antibody gave a positive result in

IHC in the following FFPE tissue: Human normal placenta.

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**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 or -

80°C. Avoid freeze / thaw cycle.

**Storage buffer** pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

 $agent. \ \ \ If you would \ like information about the formulation of a specific lot, please contact our$ 

scientific support team who will be happy to help.

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Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

#### **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab113533 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
IHC-P	<b>★★★★ (1)</b>	Use a concentration of 5 µg/ml.
WB	<b>★★★★</b> (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).
ICC/IF		Use a concentration of 5 µg/ml.

#### **Target**

**Function** Inhibits neurotransmitter release by reducing calcium ion currents and increasing potassium ion

conductance. Receptor for dynorphins. May play a role in arousal and regulation of autonomic and

neuroendocrine functions.

**Sequence similarities** Belongs to the G-protein coupled receptor 1 family.

**Cellular localization** Cell membrane.

# **Images**



Western blot - Anti-Kappa Opioid Receptor antibody (ab113533)

All lanes: Anti-Kappa Opioid Receptor antibody (ab113533) at 1 µg/ml

Lane 1: Human brain tissue lysate - total protein

Lane 2: Human spinal cord tissue lysate - total protein

Lane 3: Human placenta tissue lysate - total protein

Lysates/proteins at 10 µg per lane.

### **Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed at 1/50000 dilution

Performed under reducing conditions.

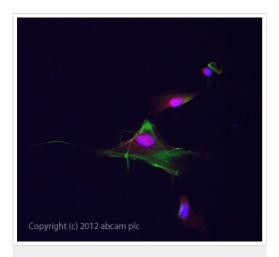
Predicted band size: 42 kDa

Observed band size: 42 kDa

Additional bands at: 52 kDa (possible non-specific binding)

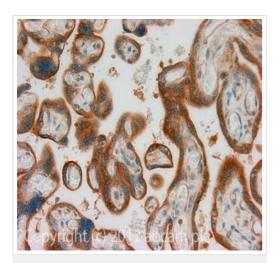
Exposure time: 3 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab113533 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.



Immunocytochemistry/ Immunofluorescence - Anti-Kappa Opioid Receptor antibody (ab113533)

ab113533 stained SKNSH cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab113533 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) lgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Kappa Opioid Receptor antibody (ab113533)

IHC image of Kappa Opioid Receptor staining in Human normal placenta formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab113533, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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