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Anti-HIF-2-alpha/EPAS1 Antibody Picoband®

Catalog Number: PA1129-2

About Epas1

HIF-2 alpha is also designated EPAS1 whose gene is mapped to 2p21-p16. The predicted mouse protein is 88% identical to human EPAS1. The human EPAS1 gene contains 15 exons and spans at least 120 kb. The positions of the introns within the genomic region encoding the N-terminal bHLH-PAS domains of EPAS1 and AHR are similar, suggesting that the 5-prime ends of the 2 genes may have arisen from a gene duplication event1. Moreover, the predicted protein shares 48% sequence identity with HIF1-alpha, a bHLH-PAS transcription factor that induces EPO gene expression in cultured cells in response to hypoxia. Like HIF1A, EPAS1 binds to and activates transcription from the HIF1A response element derived from the 3-prime flanking region of the EPO gene. EPAS1 is predominantly expressed in highly vascularized tissues of adult humans and in endothelial cells of the mouse adult and embryo. Furthermore, EPAS1 may represent an important regulator of vascularization, perhaps involving the regulation of endothelial cell gene expression in response to hypoxia2. HIF2A is expressed at relatively higher levels in villus sections of placenta and in lung samples compared with other tissues examined3. In addition, The variation in EPAS1 influences the relative contribution of aerobic and anaerobic metabolism and hence the maximum sustainable metabolic power for a given event duration4.

Overview

Product Name	Anti-HIF-2-alpha/EPAS1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-HIF-2-alpha/EPAS1 Antibody catalog # PA1129-2. Tested in WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9JHS1

Technical Details

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Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human HIF-2-alpha, identical to the related mouse and rat sequence.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

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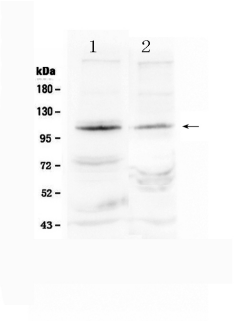
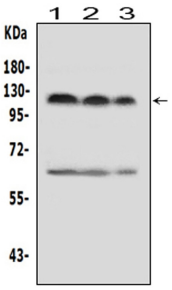
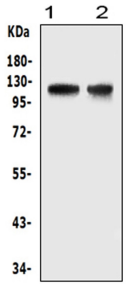
Anti-HIF-2-alpha/EPAS1 Antibody Picoband® (PA1129-2) Images



Western blot analysis of HIF2A using anti-HIF2A antibody (PA1129-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat thymus tissue lysates, Lane 2: rat testis tissue lysates, After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HIF2A antigen affinity purified polyclonal antibody (Catalog # PA1129-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HIF2A at approximately 110-120KD. The expected band size for HIF2A is at 96KD.



Western blot analysis of HIF-2A using anti-HIF-2A antibody (PA1129-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human MCF-7 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human Jurkat whole cell lysates, After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HIF-2A antigen affinity purified polyclonal antibody (Catalog # PA1129-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HIF-2A at approximately 120KD. The expected band size for HIF-2A is at 96KD.



Western blot analysis of HIF-2A using anti-HIF-2A antibody (PA1129-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse thymus tissue lysates, Lane 2: mouse lun tissue lysates, After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HIF-2A antigen affinity purified polyclonal antibody (Catalog # PA1129-2) at 0.5 ug/mL overnight at 4°C, then washed with

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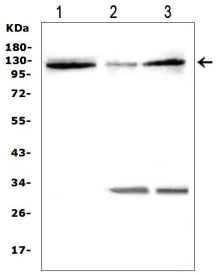
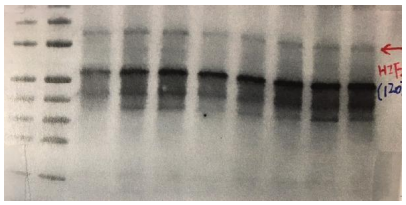
TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HIF-2A at approximately 120KD. The expected band size for HIF-2A is at 96KD.



Western blot analysis of HIF-2A using anti-HIF-2A antibody (PA1129-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: rat RH35 whole cell lysates, Lane 3: rat small intestine tissue lysates, After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HIF-2A antigen affinity purified polyclonal antibody (Catalog # PA1129-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HIF-2A at approximately 120KD. The expected band size for HIF-2A is at 96KD.



Western blot analysis of EPAS1 using anti-HIF-2-alpha/EPAS1 antibody (PA1129-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% milk for 2 hour at RT. The membrane was incubated with rabbit anti-HIF-2-alpha/EPAS1 antibody (PA1129-2) at 1:1000 in 5% milk at 4°C rotating , then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat-anti-mouse HRP secondary antibody at a dilution of 1:2000 for 2 hour rotating at RT. The signal is developed using a SuperSignal West Femto Maximum Sensitivity Substrate. A specific band was detected for EPAS1 at approximately 120 kDa. The expected band size for EPAS1 is at 120 kDa.

1 Publications Citing This Product

1. PubMed ID: 27163719, Proper autophagy is indispensable for angiogenesis during chick embryo development

Visit bosterbio.com/anti-hif-2-alpha-antibody-pa1129-2-boster.html to see all 1 publications.

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