

Rabbit HIF-1 alpha/HIF1A Polyclonal Antibody | anti-HIF1A antibody

Anti-HIF-1 alpha/HIF1A Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19213	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay, ELISA

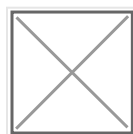
PRODUCT SYNONYMS

HIF-1 alpha/HIF1A; Polyclonal Antibody; Anti-HIF-1 alpha/HIF1A Antibody; HIF1A; BHLHE78; MOP1; PASD8; Hypoxia-inducible factor 1-alpha; HIF-1-alpha; HIF1-alpha; ARNT-interacting protein; Basic-helix-loop-helix-PAS protein MOP1; Class E basic helix-loop-helix protein 78; bHLHe78; Member of PAS protein 1; PAS domain-containing protein 8; hypoxia inducible factor 1 subunit alpha; anti-HIF1A antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for HIF-1 alpha/HIF1A detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-HIF1A antibody	WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.25-0.5ug/ml Human, Mouse, Rat IHC-P: 2-5ug/ml Human, Mouse, Rat FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human HIF-1 alpha/HIF1A recombinant protein (Position: Q603-Q814).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of A431 cells using anti-HIF-1 alpha/HIF1A antibody (AAA19213). Overlay histogram showing A431 cells stained with AAA19213 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HIF-1 alpha/HIF1A Antibody (AAA19213, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



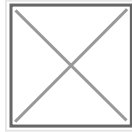
IHC (Immunohistochemistry)

Figure 5. IHC analysis of HIF-1 alpha/HIF1A using anti-HIF-1 alpha/HIF1A antibody (AAA19213). HIF-1 alpha/HIF1A was detected in paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-HIF-1 alpha/HIF1A Antibody (AAA19213) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



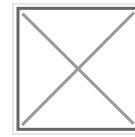
IHC (Immunohistochemistry)

Figure 4. IHC analysis of HIF-1 alpha/HIF1A using anti-HIF-1 alpha/HIF1A antibody (AAA19213).HIF-1 alpha/HIF1A was detected in paraffin-embedded section of mouse intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-HIF-1 alpha/HIF1A Antibody (AAA19213) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



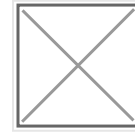
IHC (Immunohistochemistry)

Figure 2. IHC analysis of HIF-1 alpha/HIF1A using anti-HIF-1 alpha/HIF1A antibody (AAA19213).HIF-1 alpha/HIF1A was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-HIF-1 alpha/HIF1A Antibody (AAA19213) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 3. IHC analysis of HIF-1 alpha/HIF1A using anti-HIF-1 alpha/HIF1A antibody (AAA19213).HIF-1 alpha/HIF1A was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-HIF-1 alpha/HIF1A Antibody (AAA19213) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



WB (Western Blot)

Figure 1. Western blot analysis of HIF-1 alpha/HIF1A using anti-HIF-1 alpha/HIF1A antibody (AAA19213).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 30ug of sample under reducing conditions.Lane 1: human A431 whole cell lysatesLane 2: human HEPG2 whole cell lysatesLane 3: human U2OS whole cell lysatesLane 4: rat PC-12 whole cell lysatesLane 5: mouse thymus 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-1 alpha/HIF1A antigen affinity purified polyclonal antibody (Catalog # AAA19213) at 0. 5 μg/mL overnight at 4 degree 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 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system. A specific band was detected for HIF-1 alpha/HIF1A at approximately 93KD. The expected band size for HIF-1 alpha/HIF1A is at 93KD.

ADDITIONAL INFORMATION

Related Product Information for anti-HIF1A antibody	HIF-1alpha (Hypoxia-inducible factor 1alpha, HIF1A) is a transcription factor that mediates cellular and systemic homeostatic responses to reduced O2 availability in mammals, including angiogenesis, erythropoiesis and glycolysis. This gene was mapped to 14q21-q24. HIF-1alpha transactivate genes required for energy metabolism and tissue perfusion and is necessary for embryonic development and tumor explant growth. HIF-1alpha is over expressed during carcinogenesis, myocardial infarction and wound healing. It is crucial for the cellular response to hypoxia and is frequently over expressed in human cancers, resulting in the activation of genes essential for cell survival. HIF-1alpha regulates the survival and function in the inflammatory microenvironment directly. It is a transcription factor that plays a pivotal role in cellular adaptation to changes in oxygen availability.
References	1. Sutter, C. H.; Laughner, E.; Semenza, G. L. : Hypoxia-inducible factor 1-alpha protein expression is controlled by oxygen-regulated ubiquitination that is disrupted by deletions and missense mutations. Proc. Nat. Acad. Sci. 97: 4748-4753, 2000. 2. Elson, D. A.; Thurston, G.; Huang, L. E.; Ginzinger, D. G.; McDonald, D. M.; Johnson, R. S.; Arbeit, J. M. : Induction of hypervascularity without leakage or inflammation in transgenic mice overexpressing hypoxia-inducible factor-1-alpha. Genes Dev. 15: 2520-2532, 2001. 3. Koshiji, M.; To, K. K. -W.; Hammer, S.; Kumamoto, K.; Harris, A. L.; Modrich, P.; Huang, L. E. : HIF-1-alpha induces genetic instability by transcriptionally downregulating MutS-alpha expression. Molec. Cell 17: 793-803, 2005. 4. Ivan, M.; Kondo, K.; Yang, H.; Kim, W.; Valiando, J.; Ohh, M.; Salic, A.; Asara, J. M.; Lane, W. S.; Kaelin, W. G., Jr. : HIF-alpha targeted for VHL-mediated destruction by proline hydroxylation: implications for O(2) sensing. Science 292: 464-468, 2001.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504385
NCBI GeneID	3091

NCBI Accession #	NP_001521.1
NCBI GenBank Nucleotide #	NM_001530.3
UniProt Accession #	Q16665 ; Q53XP6 ; Q96PT9 ; Q9UPB1 ; C0LZJ3
Molecular Weight	92,670 Da
NCBI Official Full Name	hypoxia-inducible factor 1-alpha isoform 1
NCBI Official Synonym Full Names	hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
NCBI Official Symbol	HIF1A
NCBI Official Synonym Symbols	HIF1; MOP1; PASD8; HIF-1A; bHLHe78; HIF-1alpha; HIF1-ALPHA
NCBI Protein Information	hypoxia-inducible factor 1-alpha; HIF-1-alpha; member of PAS protein 1; ARNT interacting protein; ARNT-interacting protein; member of PAS superfamily 1; hypoxia-inducible factor1alpha; PAS domain-containing protein 8; basic-helix-loop-helix-PAS protein MO
UniProt Protein Name	Hypoxia-inducible factor 1-alpha
UniProt Gene Name	HIF1A
UniProt Synonym Gene Names	BHLHE78; MOP1; PASD8; HIF-1-alpha; HIF1-alpha; bHLHe78
UniProt Entry Name	HIF1A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/hif-1-alpha-hif1a-antibody-western-blot-immunohistochemistry-flow-cytometry-direct-elisa-elisa/19213>