

For Research Use Only

HIF-1 alpha Recombinant antibody

Catalog Number: 80933-1-RR

Featured Product



Basic Information

Catalog Number:

80933-1-RR

Concentration:

1000 ug/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG15198

GenBank Accession Number:

BC012527

GeneID (NCBI):

3091

UNIPROT ID:

Q16665

Full Name:

hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)

Calculated MW:

826 aa, 93 kDa

Observed MW:

120 kDa

Purification Method:

Protein A purification

CloneNo.:

2K1

Recommended Dilutions:

WB 1:2000-1:10000

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IF/ICC, ELISA

Species Specificity:

human

Positive Controls:

WB : Cobalt Chloride treated HeLa cells, HeLa cells

IF/ICC : Cobalt Chloride treated HeLa cells, Cobalt Chloride treated HepG2 cells

Background Information

HIF1a, the major regulator of the cellular responses to hypoxia, consists of an oxygen-sensitive subunit, HIF1 alpha (HIF1A), and an oxygen-insensitive subunit, HIF1 beta (arylhydrocarbon receptor nuclear transporter [ARNT]). Under normal oxygen conditions, HIF1a is continuously produced and destroyed, in a process involving hydroxylation, interaction with von Hippel-Lindau (VHL) protein, polyubiquitylation and subsequent proteasomal degradation. Under hypoxic conditions, hydroxylation is impaired and HIF1a is stabilized. HIF1a localizes in cytoplasm in normoxia, but it can translocate into nuclear in response to hypoxia. The calculated molecular weight of HIF1a is 93 kDa, but the modified protein HIF1a is about 110-120kDa (PMID: 11698256, PMID: 7539918).

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

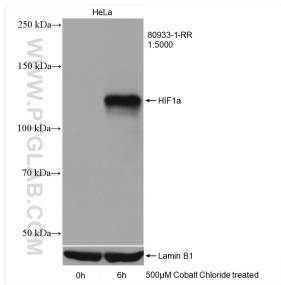
T: 4006900926

E: Proteintech-CN@ptglab.com

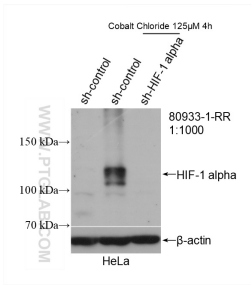
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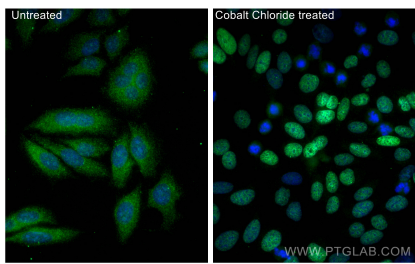
Selected Validation Data



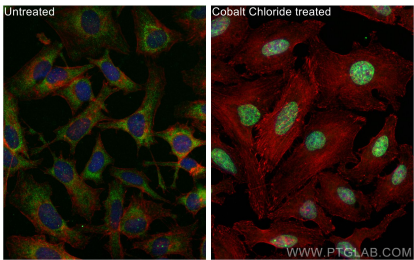
Untreated and Cobalt Chloride treated HeLa cells were subjected to SDS PAGE followed by western blot with 80933-1-RR (HIF1a antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



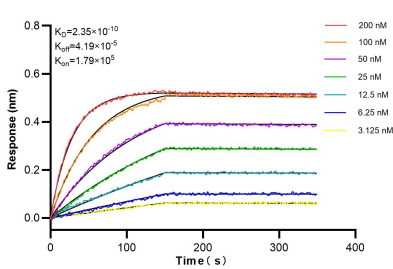
WB result of HIF-1 alpha antibody (80933-1-RR; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-HIF-1 alpha transfected HeLa cells. Sample 1: non-treated sh-Control transfected HeLa cells, Sample 2: Cobalt Chloride treated sh-Control transfected HeLa cells, Sample 3: Cobalt Chloride treated sh-HIF-1 alpha transfected HeLa cells.



Immunofluorescent analysis of (-20°C Ethanol) fixed Cobalt Chloride treated HepG2 cells using HIF1a antibody (80933-1-RR, Clone: 2K1) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (-20°C Ethanol) fixed Cobalt Chloride treated HeLa cells using HIF-1 alpha antibody (80933-1-RR, Clone: 2K1) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).



Biolayer interferometry (BLI) kinetic assays of 80933-1-RR against Human HIF-1 alpha were performed. The affinity constant is 0.235 nM.