## For Research Use Only

## HIF-1 alpha Recombinant antibody, PBS Only



**Purification Method:** 

Protein A purification

CloneNo.:

2K1

Catalog Number:80933-1-PBS

**Featured Product** 

**Basic Information** 

Catalog Number: GenBank Accession Number:

80933-1-PBS BC012527 GeneID (NCBI):

100ug , Concentration: 1000  $\mu g/ml$  by 3091

Nanodrop: **UNIPROT ID:** Q16665 Rabbit Full Name:

Isotype: hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix IgG

transcription factor) Immunogen Catalog Number: Calculated MW: AG15198

> 826 aa, 93 kDa Observed MW: 120 kDa

**Applications** 

**Tested Applications:** WB, IF, IHC, ELISA

Species Specificity: Human

**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).

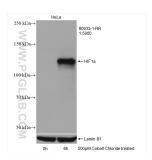
Storage

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

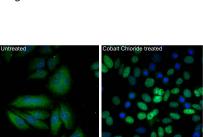
Storage Buffer: PBS only

Aliquoting is unnecessary for -20°C storage

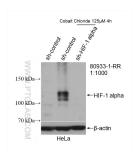
## Selected Validation Data



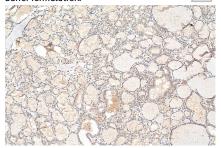
Untreated and Cobalt Chloride treated HeLa cells were subjected to SDS PAGE followed by western blot with 80933-1-RR (HIF 1a antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 80933-1-PBS in a different storage buffer formulation.



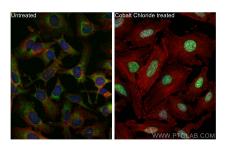
Immunofluorescent analysis of (-20°C Ethanol) fixed Cobalt Chloride treated HepG2 cells using HIF1a antibody (80933-1-RR, Clone: 2K1) at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). This data was developed using the same antibody clone with 80933-1-PBS in a different storage buffer formulation.



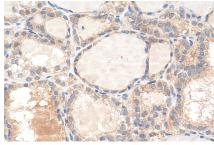
WB result of HIF-1 alpha antibody (80933-1-RR; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-HIF-1 alpha transfected Hela cells. Sample 1: non-treated sh-Control transfected Hela cells, Sample 2: Cobalt Chloride treated sh-Control transfected Hela cells, Sample 3: Cobalt Chloride treated sh-HIF-1 alpha transfected Hela cells. This data was developed using the same antibody clone with 80933-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffinembedded human thyroid cancer tissue slide using 80933-1-RR (HIF1a antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 80933-1-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 80933-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffinembedded human thyroid cancer tissue slide using 80933-1-RR (HIF1a antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 80933-1-PBS in a different storage buffer formulation.