
Anti-HIF-1 alpha Purified

Catalog Number: 14-9100

Also known as: ARNT interacting protein, hypoxia inducible factor-1

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-HIF-1 alpha Purified
Catalog Number: 14-9100
Clone: ESEE122
Concentration: 0.5 mg/mL
Host/Isotype: Mouse IgG1, kappa

REF



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to vial

Use By: Refer to vial

Contains sodium azide

Description

This ESEE122 monoclonal antibody reacts with hypoxia inducible factor-1 alpha. The hypoxia inducible factor (HIF-1) is a transcription factor composed of an inducible alpha form and the constitutively expressed beta form, also called the aryl hydrocarbon receptor nuclear translocator (ARNT). Both alpha and beta subunits of HIF-1 contain basic helix-loop-helix motifs and function to activate transcription of genes in response to reduced oxygen levels. Under normoxic conditions, HIF-1 alpha is rapidly degraded, while HIF-1 alpha expression is induced and degradation inhibited under hypoxic conditions. HIF-1 alpha can be found in the cytoplasm and/or in the nucleus under normoxic conditions, but translocates to the nucleus under hypoxic conditions. HIF-1 is upregulated in several cancer types and functions to control genes involved in angiogenesis, cell survival and T cell development. Recent studies have shown the importance of HIF-1 alpha in balancing Th17 and Treg development.

This ESEE122 antibody has also been reported to cross-react with bovine, rat, and mouse hypoxia inducible factor-1 alpha.

Applications Reported

This ESEE122 antibody has been reported for use in western blotting, immunohistochemical staining of formalin-fixed paraffin embedded tissue sections, and immunocytochemistry.

Applications Tested

This ESEE122 antibody has been tested by immunohistochemistry on formalin-fixed paraffin embedded (FFPE) human placenta at less than or equal to 10 ug/mL using low pH antigen retrieval buffer. This ESEE122 antibody has been tested by immunocytochemistry on fixed and permeabilized Hela cells at less than or equal to 10 ug/mL. It is recommended that the antibody be titrated for optimal performance in the assay of interest.

References

Dang EV, Barbi J, Yang HY, et al. Control of T(H)17/T(reg) balance by hypoxia-inducible factor 1. *Cell*. 2011 Sep 2;146(5):772-84.

Ibrahim NO, Hahn T, Franke C, Stiehl DP, Wirthner R, Wenger RH, Katschinski DM. Induction of the hypoxia-inducible factor system by low levels of heat shock protein 90 inhibitors. *Cancer Res*. 2005 Dec 1;65(23):11094-100.

Jung Y, Isaacs JS, Lee S, Trepel J, Liu ZG, Neckers L. Hypoxia-inducible factor induction by tumour necrosis factor in normoxic cells requires receptor-interacting protein-dependent nuclear factor kappa B activation. *Biochem J*. 2003 Mar 15;370(Pt 3):1011-7.

Related Products

00-4953 IHC /ICC Blocking Buffer - Low Protein
00-4954 20X TBS Wash Buffer for IHC/ICC
00-4955 IHC Antigen Retrieval Solution – Low pH (10X)
14-4714 Mouse IgG1 K Isotype Control Purified (P3.6.2.8.1)

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