

Product Information

Size:

50ul

Reactivity:

Human, Mouse, Rat

Source:

Rabbit

Isotype:

IgG

Applications:

ELISA, IHC

Recommended dilutions:

ELISA:1:1000-1:5000, IHC:1:50-1:200

Protein Background:

Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins. Hydroxylates a specific proline found in each of the oxygen-dependent degradation (ODD) domains (N-terminal, NODD, and C-terminal, CODD) of HIF1A. Also hydroxylates HIF2A. Has a preference for the CODD site for both HIF1A and HIF2A. Hydroxylation on the NODD site by EGLN3 appears to require prior hydroxylation on the CODD site. Hydroxylated HIFs are then targeted for proteasomal degradation via the von Hippel-Lindau ubiquitination complex. Under hypoxic conditions, the hydroxylation reaction is attenuated allowing HIFs to escape degradation resulting in their translocation to the nucleus, heterodimerization with HIF1B, and increased expression of hypoxia-inducible genes. EGLN3 is the most important isozyme in limiting physiological activation of HIFs (particularly HIF2A) in hypoxia. Also hydroxylates PKM in hypoxia, limiting glycolysis.

Gene ID:

PIK3C3

Uniprot

Q8NEB9

Synonyms:

phosphatidylinositol 3-kinase, catalytic subunit type 3

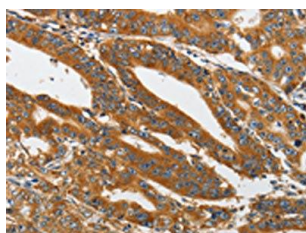
Immunogen:

Synthetic peptide of human PIK3C3.

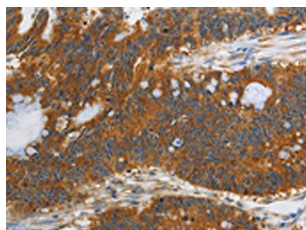
Storage:

-20°C; C, pH7.4 PBS, 0.05% NaN₃, 40% Glycerol

Product Images



The image on the left is immunohistochemistry of paraffin-embedded Human gastric cancer tissue using PACO19162(PIK3C3 Antibody) at dilution 1/40, on the right is treated with synthetic peptide. (Original magnification: x—200).



The image on the left is immunohistochemistry of paraffin-embedded Human colon cancer tissue using PACO19162(PIK3C3 Antibody) at dilution 1/40, on the right is treated with synthetic peptide. (Original magnification: x—200).