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Goat Anti-P4HA1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1772a

Specification

Goat Anti-P4HA1 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P13674
Other Accession	NP_001017962, 5033, 18451 (mouse), 64475 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**61049**

Goat Anti-P4HA1 Antibody - Additional Information

Gene ID 5033

Other Names
Prolyl 4-hydroxylase subunit alpha-1, 4-PH alpha-1, 1.14.11.2, Procollagen-proline, 2-oxoglutarate-4-dioxygenase subunit alpha-1, P4HA1, P4HA

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-P4HA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-P4HA1 Antibody - Protein Information

Name P4HA1

Synonyms P4HA

Function
Catalyzes the post-translational formation of 4- hydroxyproline in -Xaa-Pro-Gly- sequences in collagens and other proteins.

Cellular Location
Endoplasmic reticulum lumen.

Tissue Location
Expressed in the heart, liver, skeletal muscle, kidney, placenta, lung and pancreas.

Goat Anti-P4HA1 Antibody - Protocols

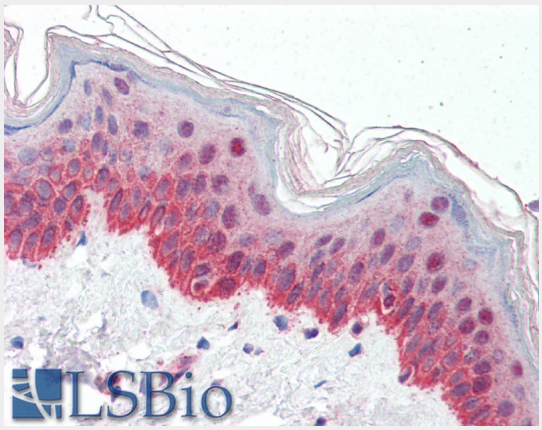
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-P4HA1 Antibody - Images



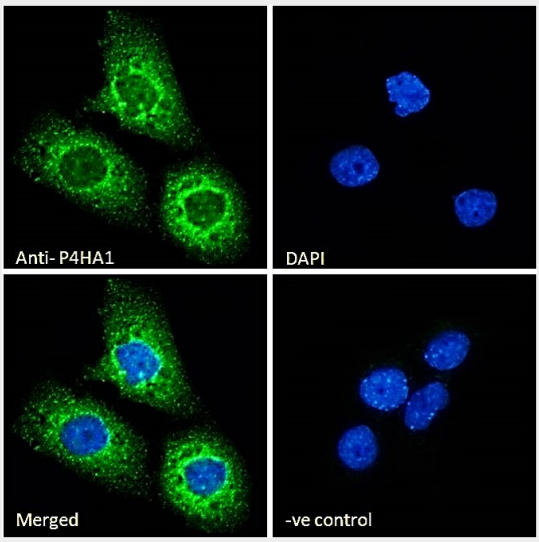
AF1772a (0.2 µg/ml) staining of HEK293 cell lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



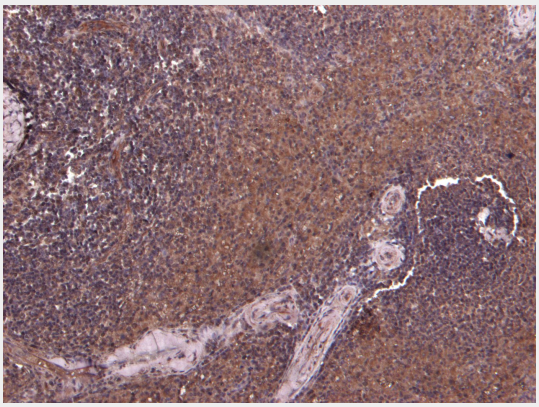
EB07666 (5µg/ml) staining of paraffin embedded Human Skin. Steamed antigen retrieval with

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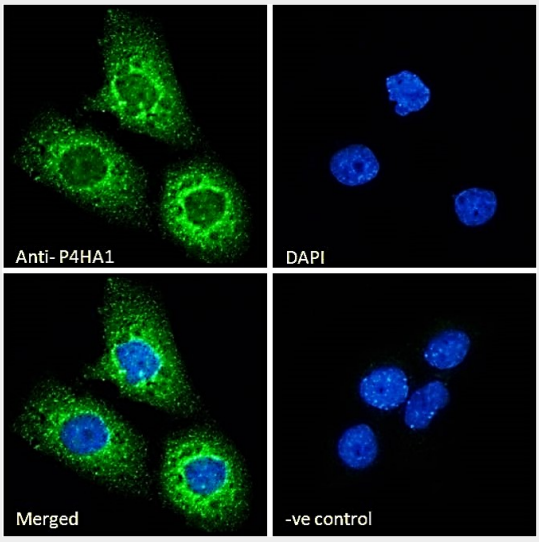
citrate buffer pH 6, AP-staining. **This data is from a previous batch, not on sale.**



EB07666 Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing endoplasmic reticulum and cytoplasmic staining. T

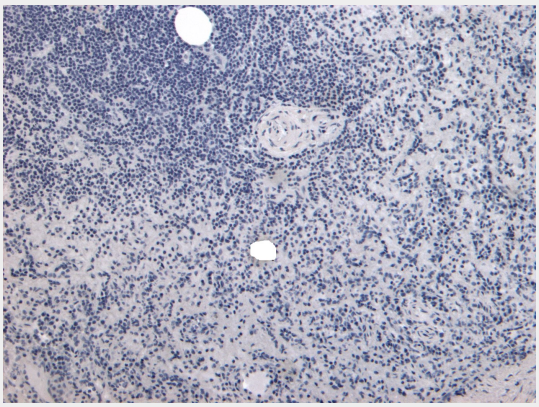


EB07666 (7µg/ml) staining of paraffin embedded Human Spleen. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining.



EB07666 Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with

0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing endoplasmic reticulum and cytoplasmic staining. T



EB07666 Negative Control showing staining of paraffin embedded Human Spleen, with no primary antibody.

Goat Anti-P4HA1 Antibody - Background

This gene encodes a component of prolyl 4-hydroxylase, a key enzyme in collagen synthesis composed of two identical alpha subunits and two beta subunits. The encoded protein is one of several different types of alpha subunits and provides the major part of the catalytic site of the active enzyme. In collagen and related proteins, prolyl 4-hydroxylase catalyzes the formation of 4-hydroxyproline that is essential to the proper three-dimensional folding of newly synthesized procollagen chains. Alternatively spliced transcript variants encoding different isoforms have been described.

Goat Anti-P4HA1 Antibody - References

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.
Stringency of the 2-His-1-Asp active-site motif in prolyl 4-hydroxylase. Gorres KL, et al. PLoS One, 2009 Nov 5. PMID 19890397.
Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. Mol Cell Proteomics, 2008 Mar. PMID 18029348.
The length of peptide substrates has a marked effect on hydroxylation by the hypoxia-inducible factor prolyl 4-hydroxylases. Koivunen P, et al. J Biol Chem, 2006 Sep 29. PMID 16885164.
Regulation of type II collagen synthesis during osteoarthritis by prolyl-4-hydroxylases: possible influence of low oxygen levels. Grimmer C, et al. Am J Pathol, 2006 Aug. PMID 16877351.