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Product datasheet for TA319213

HIF-1 alpha (HIF1A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1:5,000 - 1:25,000, WB: 1:500 - 1:2,000, IHC: 20 ug/ml
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 19-28 of human HMGN protein (see below).
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	hypoxia inducible factor 1 alpha subunit
Database Link:	NP_001230013 Entrez Gene 3091 Human Q16665
Synonyms:	bHLHe78; HIF-1-alpha; HIF-1A; HIF-1alpha; HIF1; HIF1-ALPHA; MOP1; PASD8

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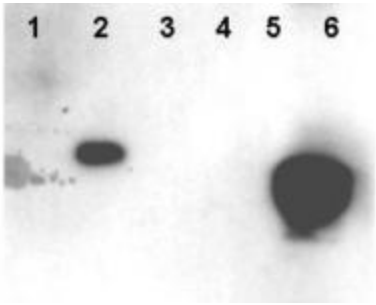
Note: This antibody is suitable for Cancer, Immunology and Nuclear Signaling research. HMGNs are proteins that bind chromatin effectively reducing the compaction of the chromatin fiber and enhancing access to DNA regulatory sequences. Members of this family have a conserved chromatin binding domain which is phosphorylated during mitosis. The sequence immunized is conserved in several species. As such, this reagent is designed as a ''universal'' reagent for the detection of all phosphorylated HMGN proteins. The High Mobility Group (HMG) proteins were originally isolated from mammalian cells and were named according to their electrophoretic mobility in polyacrylamide gels. HMGs were arbitrarily classed as a specific type of nonhistone proteins based on the observation that they are ubiquitous to mammalian cells, that they share certain physical properties, and that they are associated with isolated chromatin. HMG proteins and are now subdivided into 3 families: the HMGB (formerly HMG-1/-2) family, the HMGN (formerly HMG-14/-17) family, and the HMGA (formerly HMG-I/Y/C) family. Each HMG family has a characteristic functional sequence motif. The functional motif of the HMGB family is called the ''HMG-box;'' that of the HMGN family, the ''nucleosomal binding domain;'' and that of the HMGA family, the ''AT-hook.'' The functional motifs characteristic of these canonical HMGs are widespread among nuclear proteins in a variety of organisms. Proteins containing any of these functional motifs embedded in their sequence are known as ''HMG motif proteins.''

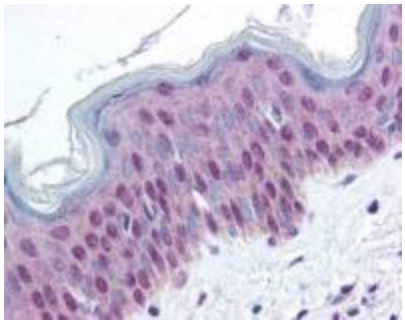
Protein Families: Transcription Factors

Protein Pathways: mTOR signaling pathway, Pathways in cancer, Renal cell carcinoma

Product images:



WB using Anti-HMNG antibody shows detection of phosphorylated HMGN1 and HMGN2. Recombinant native and mutant HMGN proteins were treated with kinase PKCalpha to specifically phosphorylate S20 and S24 residues. Lanes contain: 1 - HMGN1, non-phosphorylated, 2 - HMGN1, phosphorylated, 3 - HMGN1 delta20E, delta24E, non-phosphorylated, 4 - HMGN1, delta20E, delta24E, phosphorylated, 5 - HMGN2, non-phosphorylated, and 6 - HMGN2, phosphorylated. The primary antibody was diluted 1:1,000.



Anti-HMGN pS20/pS24 antibody was used at 20 ug/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows moderate nuclear and faint cytoplasmic positive staining of epidermal keratinocytes at 40X. Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain.