

#### Goat Anti-E2F6 Antibody

Peptide-affinity purified goat antibody Catalog # AF2210a

#### Specification

# Goat Anti-E2F6 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB <u>075461</u> <u>NP\_937987</u>, <u>1876</u> Human Dog, Cow Goat Polyclonal 100ug/200ul IgG 31844

## Goat Anti-E2F6 Antibody - Additional Information

Gene ID 1876

Other Names Transcription factor E2F6, E2F-6, E2F6

Format

0.5 mg lgG/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-E2F6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Goat Anti-E2F6 Antibody - Protein Information

Name E2F6 {ECO:0000303|PubMed:9689056, ECO:0000312|HGNC:HGNC:3120}

Function

Inhibitor of E2F-dependent transcription (PubMed:<a href="http://www.uniprot.org/citations/9689056" target="\_blank">9689056</a>, PubMed:<a href="http://www.uniprot.org/citations/9704927" target="\_blank">9704927</a>, PubMed:<a href="http://www.uniprot.org/citations/9501179" target="\_blank">9501179</a>). Binds DNA cooperatively with DP proteins through the E2 recognition site, 5'-TTTC[CG]CGC-3' (PubMed:<a href="http://www.uniprot.org/citations/9501179" target="\_blank">9501179</a>). Binds DNA



preference for the 5'-TTTCCCGC-3' E2F recognition site (PubMed:<a

href="http://www.uniprot.org/citations/9501179" target="\_blank">9501179</a>). E2F6 lacks the transcriptional activation and pocket protein binding domains (PubMed:<a

href="http://www.uniprot.org/citations/9704927" target="\_blank">9704927</a>, PubMed:<a href="http://www.uniprot.org/citations/9501179" target="\_blank">9501179</a>). Appears to regulate a subset of E2F-dependent genes whose products are required for entry into the cell cycle but not for normal cell cycle progression (PubMed:<a

href="http://www.uniprot.org/citations/9689056" target="\_blank">9689056</a>, PubMed:<a href="http://www.uniprot.org/citations/9501179" target="\_blank">9501179</a>). Represses expression of some meiosis-specific genes, including SLC25A31/ANT4 (By similarity). May silence expression via the recruitment of a chromatin remodeling complex containing histone H3-K9 methyltransferase activity. Overexpression delays the exit of cells from the S-phase (PubMed:<a href="http://www.uniprot.org/citations/9501179" target="\_blank">9501179</a>).

Cellular Location Nucleus

#### **Tissue Location**

Expressed in all tissues examined. Highest levels in placenta, skeletal muscle, heart, ovary, kidney, small intestine and spleen.

# Goat Anti-E2F6 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Goat Anti-E2F6 Antibody - Images



AF2210a (1 µg/ml) staining of Human Skeletal Muscle lysate (35 µg protein in RIPA buffer).



# Primary incubation was 1 hour. Detected by chemiluminescence.

## Goat Anti-E2F6 Antibody - Background

This gene encodes a member of the E2F transcription factor protein family. E2F family members play a crucial role in control of the cell cycle and of the action of tumor suppressor proteins. They are also a target of the transforming proteins of small DNA tumor viruses. Many E2F proteins contain several evolutionarily conserved domains: a DNA binding domain, a dimerization domain which determines interaction with the differentiation regulated transcription factor proteins (DP), a transactivation domain enriched in acidic amino acids, and a tumor suppressor protein association domain which is embedded within the transactivation domain. The encoded protein of this gene is atypical because it lacks the transactivation and tumor suppressor protein association domains. It contains a modular suppression domain and is an inhibitor of E2F-dependent transcription. The protein is part of a multimeric protein complex that contains a histone methyltransferase and the transcription factors Mga and Max. Multiple transcript variants have been reported for this gene, but it has not been clearly demonstrated that they encode valid isoforms.

#### Goat Anti-E2F6 Antibody - References

Cell cycle genes and ovarian cancer susceptibility: a tagSNP analysis. Cunningham JM, et al. Br J Cancer, 2009 Oct 20. PMID 19738611.

E2F6 inhibits cobalt chloride-mimetic hypoxia-induced apoptosis through E2F1. Yang WW, et al. Mol Biol Cell, 2008 Sep. PMID 18562691.

A comprehensive ChIP-chip analysis of E2F1, E2F4, and E2F6 in normal and tumor cells reveals interchangeable roles of E2F family members. Xu X, et al. Genome Res, 2007 Nov. PMID 17908821. E2F-6 suppresses growth-associated apoptosis of human hematopoietic progenitor cells by counteracting proapoptotic activity of E2F-1. Kikuchi J, et al. Stem Cells, 2007 Oct. PMID 17600109. The histone H3K4 demethylase SMCX links REST target genes to X-linked mental retardation. Tahiliani M, et al. Nature, 2007 May 31. PMID 17468742.