

## DBC 1 (3G4) MOUSE MAB

**Cat.#:** N261007

**Product Name:** Anti-DBC 1 (3G4) Mouse Monoclonal Antibody

**Synonyms:** DBC1; DBC-1; NET35; p30DBC; p30 DBC; KIAA1967

**UNIPROT ID:** Q8N163

**Background:** Core component of the DBIRD complex, a multiprotein complex that acts at the interface between core mRNP particles and RNA polymerase II (RNAPII) and integrates transcript elongation with the regulation of alternative splicing: the DBIRD complex affects local transcript elongation rates and alternative splicing of a large set of exons embedded in (A + T)-rich DNA regions. Inhibits SIRT1 deacetylase activity leading to increasing levels of p53/TP53 acetylation and p53-mediated apoptosis. Inhibits SUV39H1 methyltransferase activity. As part of a histone H3-specific methyltransferase complex may mediate ligand-dependent transcriptional activation by nuclear hormone receptors. Plays a critical role in maintaining genomic stability and cellular integrity following UV-induced genotoxic stress. Regulates the circadian expression of the core clock components NR1D1 and ARNTL/BMAL1. Enhances the transcriptional repressor activity of NR1D1 through stabilization of NR1D1 protein levels by preventing its ubiquitination and subsequent degradation (PubMed:18235501, PubMed:18235502, PubMed:19131338, PubMed:19218236, PubMed:22446626, PubMed:23352644, PubMed:23398316). Represses the ligand-dependent transcriptional activation function of ESR2 (PubMed:20074560). Acts as a regulator of PCK1 expression and gluconeogenesis by a mechanism that involves, at least in part, both NR1D1 and SIRT1 (PubMed:24415752). Negatively regulates the deacetylase activity of HDAC3 and can alter its subcellular localization (PubMed:21030595). Positively regulates the beta-catenin pathway (canonical Wnt signaling pathway) and is required for MCC-mediated repression of the beta-catenin pathway (PubMed:24824780). Represses ligand-dependent transcriptional activation function of NR1H2 and NR1H3 and inhibits the interaction of SIRT1 with NR1H3 (PubMed:25661920). Plays an important role in tumor suppression through p53/TP53 regulation; stabilizes p53/TP53 by affecting its interaction with ubiquitin ligase MDM2 (PubMed:25732823). Represses the transcriptional activator activity of BRCA1 (PubMed:20160719). Inhibits SIRT1 in a CHEK2 and PSEM3-dependent manner and inhibits the activity of CHEK2 in vitro (PubMed:25361978).

**Immunogen:** Purified recombinant human DBC1 protein fragments expressed in E.coli

**Applications:** WB,ICC/IF,IP

**Recommended Dilutions:** WB: 1/500-1/1000 IF: 1/50-1/200 IP: 1/20

**Host Species:** Mouse

**Clonality:** Mouse Monoclonal

**Clone ID:** 3G4-D11-D7

**MW:** Calculated MW: 103 kDa; Observed MW: 130 kDa

**Isotype:** IgG1

**Purification:** Affinity Purified

**Species Reactivity:** Human,Mouse,Rat,Monkey

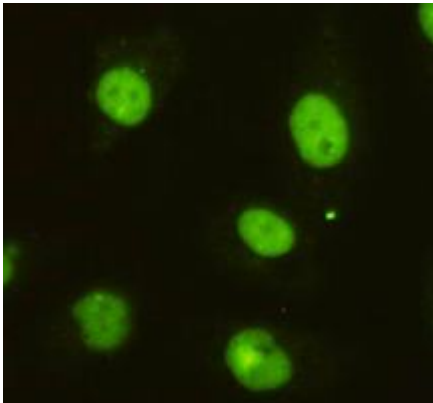
**Conjugation:** Unconjugated

**Modification:** Unmodified

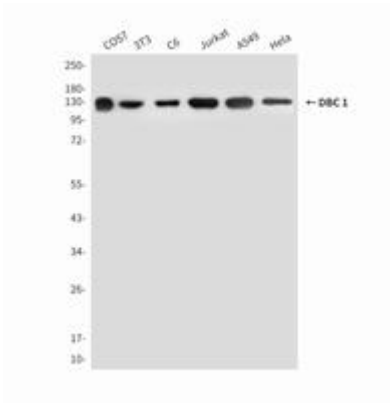
**Constituents:** PBS (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.3 containing 50% glycerol, 0.5% BSA and 0.02% sodium azide

**Research Areas:** Epigenetics and Nuclear Signaling

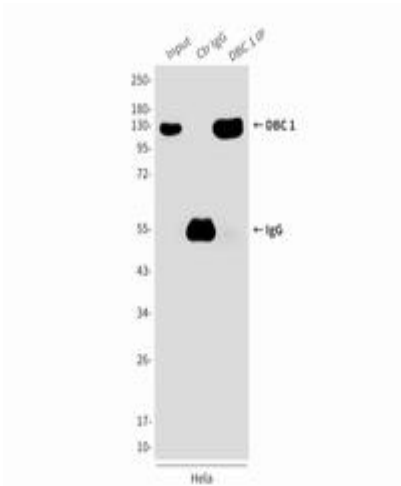
**Storage & Shipping:** Store at -20°C. Avoid repeated freezing and thawing



Immunocytochemistry analysis of DBC1 in HeLa cells using DBC1 antibody.



Western blot analysis of DBC1 in HeLa, A549, Jurkat, C6, 3T3 and COS7 lysates using DBC1 antibody.



Immunoprecipitation analysis of DBC1 (3G4) in HeLa lysates using DBC1 antibody.