

Product datasheet

HsGAPDH ChIP probe ab83587

Overview

Product name	HsGAPDH ChIP probe
General notes	Accession number: NM_002046. The HsGAPDH primers and probe can be used to quantify a control locus in chromatin immunoprecipitation (ChIP) assays with chromatin prepared from human cells. GAPDH (Glyceraldehyde 3-phosphate dehydrogenase) is a highly expressed housekeeping gene. The primers and probe are located in exon 1, within 1 kb of the transcription start site. In most cell types, this locus is highly enriched with histone modifications associated with active gene transcription such as Histone H3 K9 acetylation (see image with ab4441). Whereas it shows low levels of histone modifications associated with silencing such as Histone H3 K9 tri methylation (see image with ab71604).
Tested applications	Suitable for: Real Time PCR

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Store in the dark. Avoid repeated freeze / thaw cycles.
Storage buffer	Constituent: ddH2O
Function	Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively. Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis. Nuclear functions are probably due to the nitrosylase activity that mediates cysteine S-nitrosylation of nuclear target proteins such as SIRT1, HDAC2 and PRKDC (By similarity). Glyceraldehyde-3-phosphate dehydrogenase is a key enzyme in glycolysis that catalyzes the first step of the pathway by converting D-glyceraldehyde 3-phosphate (G3P) into 3-phospho-D-glyceroyl phosphate.
Pathway	Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 1/5.
Sequence similarities	Belongs to the glyceraldehyde-3-phosphate dehydrogenase family.
Post-translational modifications	S-nitrosylation of Cys-152 leads to interaction with SIAH1, followed by translocation to the nucleus. ISGylated.
Cellular localization	Cytoplasm > cytosol. Nucleus. Cytoplasm > perinuclear region. Membrane. Translocates to the nucleus following S-nitrosylation and interaction with SIAH1, which contains a nuclear localization signal (By similarity). Postnuclear and Perinuclear regions.

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab83587 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Real Time PCR		Use at an assay dependent concentration. Suitable for the analysis of chromatin immunoprecipitated DNA using Taqman [®] real time PCR. The probe is labelled with FAM/TAMRA. Quantity provided for 200 reactions. Please see the protocol page for the instructions for this product.

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