

Product Data Sheet

Product Name: HDAC5 (human, recombinant)

Cat. No.: GC49693

Chemical Properties

Cas. No. N/A

SMILES N/A

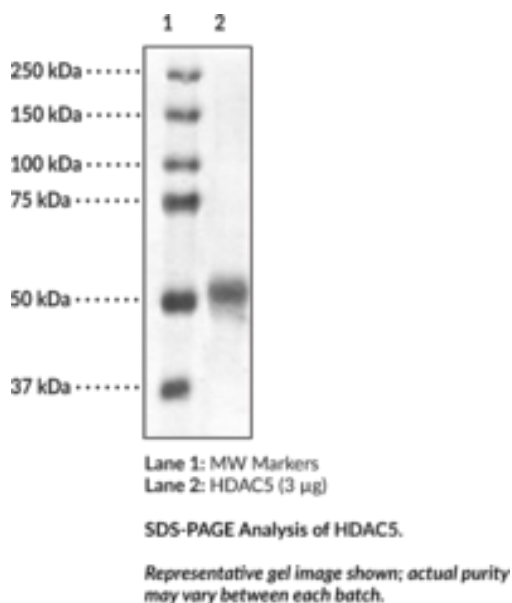
Formula N/A M.Wt 51

Solubility N/A Storage -80°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Histone deacetylases (HDACs) catalyze the deacetylation of core histones, resulting in tightening of nucleosomal integrity, restriction of the access of transcription factors, and suppression of transcription. HDACs also play an important role in mediating nuclear receptor functions by forming

Caution: Product has not been fully validated for medical applications. For research use only.

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co-repressor complexes with nuclear receptors in the absence of ligands. They are also involved in mediating other transcription regulatory pathways by associating with transcription factors, such as E2F, TFIIE, TFIIF, NF- κ B, p300, Stat3, p53, and the retinoblastoma (Rb) protein.¹ HDAC5 is a Class IIa HDAC which is homologous to yeast Hda 1 and is larger in size than the other two classes of HDACs.^{1,2} Class IIa HDACs contain a highly conserved C-terminal deacetylase catalytic domain (~420 amino acids) and an N-terminal domain with no similarity to HDACs in other classes. Class IIa HDACs can shuttle between the nucleus and cytoplasm, suggesting potential extranuclear functions by regulating the acetylation status of non-histone substrates. By modifying chromatin structure and other non-histone proteins, HDACs play important roles in controlling complex biological events, including cell development, differentiation, programmed cell death, angiogenesis, and inflammation. Considering these major roles, it is conceivable that dysregulation of HDACs and subsequent imbalance of acetylation and deacetylation may be involved in the pathogenesis of various diseases, including cancer and inflammatory diseases.²

1.Lin, H.Y., Chen, C.S., Lin, S.P., et al.Targeting histone deacetylase in cancer therapyMed. Res. Rev.26(4)397-413(2006) 2.Huang, L.Targeting histone deacetylases for the treatment of cancer and inflammatory diseasesJ. Cell. Physiol.209(3)611-616(2006)

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