abcam

Product datasheet

Human HDAC4 peptide ab41767

製品の詳細

製品名	Human HDAC4 peptide
精製度	> 95 % SDS-PAGE.
Animal free	No
由来	Synthetic
生物種	Human
配列	KRPDEEPMEEEPPL
領域	1071 to 1084

特性

Our **Abpromise guarantee** covers the use of **ab41767** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Neutralising
	Blocking
製品の状態	Liquid

前処理および保存

保存方法および安定性	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

関連情報

機能	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Involved in muscle maturation via its interaction with the myocyte enhancer factors such as MEF2A, MEF2C and MEF2D.
組織特異性	Ubiquitous.
関連疾患	Defects in HDAC4 are the cause of brachydactyly-mental retardation syndrome (BDMR)

	[MIM:600430]. A syndrome resembling the physical anomalies found in Albright hereditary osteodystrophy. Common features are mild facial dysmorphism, congenital heart defects, distinct brachydactyly type E, mental retardation, developmental delay, seizures, autism spectrum disorder, and stocky build. Soft tissue ossification is absent, and there are no abnormalities in parathyroid hormone or calcium metabolism.
配列類似性	Belongs to the histone deacetylase family. HD type 2 subfamily.
ドメイン	The nuclear export sequence mediates the shuttling between the nucleus and the cytoplasm.
翻訳後修飾	Phosphorylated by CaMK4 at Ser-246, Ser-467 and Ser-632. Phosphorylation at other residues is required for the interaction with 14-3-3. Sumoylation on Lys-559 is promoted by the E3 SUMO-protein ligase RANBP2, and prevented by phosphorylation by CaMK4.
細胞内局在	Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm. Upon muscle cells differentiation, it accumulates in the nuclei of myotubes, suggesting a positive role of nuclear HDAC4 in muscle differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-246, Ser-467 and Ser-632 by CaMK4. The nuclear localization probably depends on sumoylation.