

Overview

Synonyms	Bromodomain containing 4, HUNK1, MCAP.
Description	<p>Bromodomain (BRD) is an extensive family of protein domains, originally identified in and named after the <i>Drosophila</i> protein Brahma. Members of BRD family share a conserved atypical left-handed four helix bundle structure, and specifically bind to μ-lysine acetylated proteins. It is well known that histone acetylation and methylation play a central role in epigenetics and are important for various gene transcription events, thus the acetyl-lysine binding property of BRDs make them suitable drug targets for epigenetics. Currently, there are 46 diverse human proteins containing 61 BRDs. These include histone acetyltransferases, ATP-dependent chromatin-remodeling complex proteins, and nuclear scaffold proteins. The main functions of BRDs in vivo include chromatin acetylation and deacetylation, nucleosome assembly and remodeling, and organizations of chromosome or chromatin domains.</p> <p>Recombinant human BRD4 (49-460) with His tag produced in <i>E.coli</i> is a single, non-glycosylated polypeptide chain containing 419 amino acids. A fully biologically active molecule, BRD4 (49-460) has a molecular mass of 47.5 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.</p>
Accession No	NM_058243
Species	Human
Source	<i>E. coli</i>
Biological Activity	<p>Assay condition: 50 mM HEPES, 50 mM NaCl, and 1 mM CHAPS, pH 7.5. Biotinylated acetyl-histone peptide substrate binding to Bromodomain reaction was performed by adding 200 nM substrate to serially diluted BRD, and incubation for 1 h at RT. Treatment with equivalent detection buffer (2 nM Eu-Anti-His and 40 nM U-light-SA in Assay buffer), and incubation for 1 h at RT subsequently followed.</p>
Sequence	<p>MHHHHHETS NPNKPKRQTN QLQYLLRVVL KTLWKHQFAW PFQQPVDAVK LNLDPYYKII KTPMDMGTIK KRLENNYYWN AQECIQDFNT MFTNCYIYNK PGDDIVLMAE ALEKLFQKI NELPTEETEI MIVQAKGRGR GRKETGTAKP GVSTVPNTTQ ASTPPQTQTP QNPPPVQAT PHFFPAVTPD LIVQTPVMTV VPPQPLQTPP FVPPQPQPPP APAPQPVQSH PPIIAATPQP VKTKKGVKRRK ADTTTPTTID PIHEPPSLPP EPKTTKLGQR RESSRPVKPP KKDVPDSQQH PAPEKSSKVS EQLKCCSGIL KEMFAKKHAA YAWPFYKPV DVEALGLHDYC DI IKHPMDMS TIKSKLEARE YRDAQEFGAD VRLMFSNCYK YNPPDHEVVA MARKLQDVFE MRFKMPDE</p>

Properties

Measured Molecular Weight	47.5 kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE and HPLC analysis.
Formulation	Sterile liquid solution contains 25 mM HEPES, pH 7.5, 150 mM NaCl, 5% glycerol, 0.5 mM TCEP. Frozen solution.
Endotoxin Level	< 1 EU/ μ g, determined by LAL method.
Storage	BRD4 (49-460) remains stable up to 6 months at -80°C from date of receipt. For maximum recovery of product, centrifuge original vial prior to removing the cap. Aliquot to avoid repeated thawing and freezing.
Note	For research use only

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura,
Delhi – 110034 (INDIA).

Mobile: +91-9810521400, Ph: +91-11-42208000

Email: customerservice@lifetechindia.com

Web: www.lifetechindia.com