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Bromodomain-containing protein 4 (BRD4), His, Human

Cat.no. PK0029
Product size: 100ug
Source: E. coli
Species: Human

Biological Activity: 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.

Molecular Weight: 47.5 kDa, observed by reducing SDS-PAGE.

Formulation: Sterile liquid solution contains 25mM HEPES, pH7.5, 150mM NaCl, 5% glycerol, 0.5 mM TCEP. Frozen solution.

Purity: > 95% as analyzed by SDS-PAGE and HPLC.

Endotoxin Level: < 1EU/μg, determined by LAL method.

Storage: BRD4 remains stable up to 6 months at -80℃ from date of receipt. For maximum recovery of product, centrifuge original vial prior to removing the cap. Aliquot to avoid repeated thawing and freezing.

Description: Bromodomain (BRD) is an extensive family of protein domains, originally identified in and named after the Drosophila protein Brahma. Members of BRD family share a conserved atypical left-handed four helix bundle structure, and specifically bind to ε-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. Recombinant human BRD4 (49-460) with His tag produced in E.coli is a single, non-glycosylated polypeptide chain containing 419 amino acids.

Amino Acid Sequence:
00001 MHHHHHHETS NPNKPKRQTN QLQYLLRVVL KTLWKHQFAW
00041 PFQQPVDAVK LNLPDYYKII KTPMDMGTIK KRLENNYYWN
00081 AQECIQDFNT MFTNCYIYNK PGDDIVLMAE ALEKLFLQKI
00121 NELPTEETEI MIVQAKGRGR GRKETGTAKP GVSTVPNTTQ
00161 ASTPPQTQTP QPNPPPVQAT PHPFPAVTPD LIVQTPVMTV
00201 VPPQPLQTPP PVPPQPQPPP APAPQPVQSH PPIIAATPQP
00241 VKTKKGVKRK ADTTTPTTID PIHEPPSLPP EPKTTKLGQR
00281 RESSRPVKPP KKDVPDSQQH PAPEKSSKVS EQLKCCSGIL
00321 KEMFAKKHAA YAWPFYKPVD VEALGLHDYC DIIKHPMDMS
00361 TIKSKLEARE YRDAQEFGAD VRLMFSNCYK YNPPDHEVVA
00401 MARKLQDVFE MRFAKMPDE

Synonyms: Bromodomain-containing protein 4, HUNK1, BRD4

Note: For research use only, not for use in diagnostic procedure.