

Bromodomain-containing protein 2 (BRD2), His, Human

Cat.no. PK0027

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: 45.3 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: BRD2 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.

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 BRD2 (65-459) with His tag produced in E. coli is a single, non-glycosylated polypeptide chain containing 402 amino acids.

Amino Acid Sequence:

00001 MHHHHHHEVS NPKKPGRVTN QLQYLHKVVM KALWKHQFAW
00041 PFRQPVDAVK LGLPDYHKII KQPMMDGTIK RRLNNYYWA
00081 ASECMQDFNT MFTNCYIYNK PTDDIVLMAQ TLEKIFLQKV
00121 ASMPQEEQEL VVTIPKNSHK KGAKLAALQG SVTSAHQVPA
00161 VSSVSHTALY TPPPEIPTTV LNIPHPSVIS SPLLSLHSA
00201 GPPLLAVTAA PPAQPLAKKK GVKRKADTTT PTPTAILAPG
00241 SPASPPGSLE PKAARLPPMR RESGRPIKPP RKDLPDSQQQ
00281 HQSSKKGKLS EQLKHCNGIL KELLSSKKHAA YAWPFYKPVD
00321 ASALGLHDYH DIIKHPMDLS TVKRKMENRD YRDAQEFAAD
00361 VRLMFSNCYK YNPPDHDVVA MARKLQDVFE FRYAKMPDEP
00401 LE

Synonyms: Bromodomain-containing protein 2, O27.1.1, Really interesting new gene 3 protein, BRD2, KIAA9001, RING3

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