



Anti-ARD1 N-acetyltransferase homologue, rabbit Polyclonal Antibody

Catalog No. GB-10511

Antigen species: Human

Host species: Rabbit

Quantity: 250 μ l **Applications tested:** ELISA

Reactivity: Human, rat, mouse, canine

Form: Antiserum

Target description

Protein acetyltransferases and deacetylases have been implicated in oncogenesis, apoptosis and cell cycle regulation. Most of the protein acetyltransferases described acetylate epsilon-amino groups of lysine residues within proteins. Mouse ARD1 (homologue of yeast Ard1p, where Ard1p stands for arrest defective 1 protein) is the only known protein acetyltransferase catalysing acetylation of proteins at both alpha-(N-terminus) and epsilon-amino groups. Yeast Ard1p interacts with Nat1p (N-acetyltransferase 1 protein) to form a functional NAT (N-acetyltransferase). We now describe the human homologue of Nat1p, NATH (NAT human), as the partner of the hARD1 (human ARD1) protein. Included in the characterization of the NATH and hARD1 proteins is the following: (i) endogenous NATH and hARD1 proteins are expressed in human epithelial, glioma and promyelocytic cell lines; (ii) NATH and hARD1 form a stable complex, as investigated by reciprocal immunoprecipitations followed by MS analysis; (iii) NATH-hARD1 complex expresses N-terminal acetylation activity; (iv) NATH and hARD1 interact with ribosomal subunits, indicating a co-translational acetyltransferase function; (v) NATH is localized in the cytoplasm, whereas hARD1 localizes both to the cytoplasm and nucleus; (vi) hARD1 partially co-localizes in nuclear spots with the transcription factor HIF-1 α (hypoxia-inducible factor 1 α), a known epsilon-amino substrate of ARD1; (vii) NATH and hARD1 are cleaved during apoptosis, resulting in a decreased NAT activity.

Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide located within the putative C-terminal domain (a.a. 155-235) of human ARD1 N-acetyl transferase homologue (ACCESSION # CAA54691).

Application

The antibody titer is more than 10K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/10,000 dilution for ELISA, 1/5000 dilution for Western blot analysis (WB) of recombinant protein, 1/2000 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-TEM1 pAb (GB-10374).
2. Anti-TEM3 pAb (GB-30132).
3. Anti-TEM4 pAb (GB-30133).
4. Anti-TEM5 pAb (GB-10011).
5. Anti-TEM5 pAb (GB-30028).

Ab dilution	Pre-bleed	Anti-serum
1:0.1K	0.089	1.716
1:1K	0.052	0.819
1:10K	0.047	0.172
1:100K	0.058	0.067
1:1,000K	0.045	0.049
Titer		21K

ELISA Protocol

Antigen is coated on EIA strips at 1 μ g per well. Add 200 μ l of blocking buffer and then wash wells with PBST buffer. Pre-bleed serum and peptide's specific purified antibody GB-10511 is diluted in series as $10^2 \sim 10^5$ folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody titer is defined as >0.1 of ABS of antiserum minus prebleed serum.

Storage

It is supplied as lyophilized serum. Redissolve the lyophilized powder with 250 microliter sterile water will restore the original condition. Store at 4 $^{\circ}$ C for short term application. For long-term storage, aliquot and store at -20 $^{\circ}$ C.

References

1. Arnesen,T., Anderson,D., Baldersheim,C., Lanotte,M., Varhaug,J.E. and Lillehaug,J.R. Identification and characterization of the human ARD1-NATH protein acetyltransferase complex Biochem. J. 386, 433-443 (2005)
2. Arnesen,T., Gromyko,D., Horvli,O., Fluge,O., Lillehaug,J. and Varhaug,J.E. Expression of N-acetyl transferase human and human Arrest defective 1 proteins in thyroid neoplasms. Thyroid 15, 1131-1136 (2005)