PRODUCT INFORMATION

Catalog number ATGA0364

Clone No. AT2D6

Product type Monoclonal Antibody

UnitProt No. P16152

NCBI Accession No. NP_001748

Alternative Names

Carbonyl reductase 1, Carbonyl reductase 1, CBR, hCBR1, SDR21C1, CBR1, Carbonyl reductase 1 15 hydroxyprostaglandin dehydrogenase [NADP+], Carbonyl reductase [NADPH] 1.CBR 1, CRN, NADPH dependent carbonyl reductase 1, Prostaglandin 9 ketoreductase, Prostaglandin E(2) 9 reductase

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With Human

Concentration 1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human CBR1 (1-277aa) purified from E. coli

Isotype

IgG2a kappa

Purification Note

By protein-A affinity chromatography

Application

ELISA, WB, ICC/IF, FACS

Usage

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.



Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Carbonyl reductase 1 (CBR1) is a NADPH-dependent, monomeric, and cytosolic enzyme belonging to a family of short-chain dehydrogenases/reductases. This protein consists of 277 amino acid residues and is widely distributed in human tissues such as liver, epidermis, stomach, small intestine, kidney, neuronal cells, and smooth muscle fiber. CBR1 metabolizes many toxic environmental quinones and pharmacological relevant substrates such as the anticancer drug, doxorubicin. The best substrates of CBR1 are quinones, including ubiquinone-1 and tocophrolquinone (vitamin E).

General References

Lemieux N., et al. (1993) Genomics. 15(1): 169-172. Wermuth B., et al. (1986). Biochem Pharmacol. 35 (8): 1277-1282.

DATA

Western blot analysis (WB)



The Recombinant Human CBR1 (50ng) and Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CBR1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1.: Recombinant Human CBR1 Lane 2. : HeLa cell lysate Lane 3. : 293T cell lysate Lane 4. : MCF-7 cell lysate

Lane 5. : HepG2 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of CBR1 in HeLa cells. The cell was stained with ATGA0364 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



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Flow cytometry analysis of CBR1 in HeLa cell line, staining at 2-5ug for 1×10^{6} cells (red line). The secondary antibody used goat antimouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

