Human Carbonyl reductase 1/CBR1 antibody

Catalog Number: ATGA0364

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.

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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

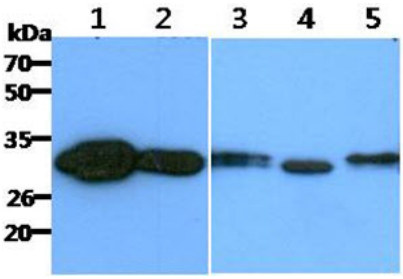
Carbonyl reductase 1 (CBR1) is a NADPH-dependent, monomeric, and cytosolic enzyme belonging to a family of short-chain dehydrogenases/reductases. This protein consists of 277 amino acid residues and is widely distributed in human tissues such as liver, epidermis, stomach, small intestine, kidney, neuronal 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.

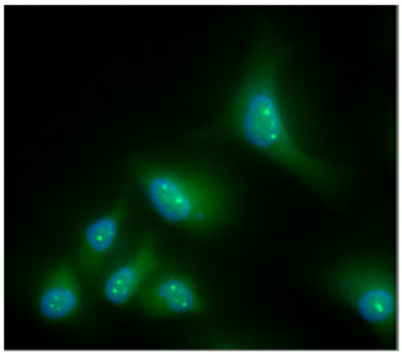
DATA

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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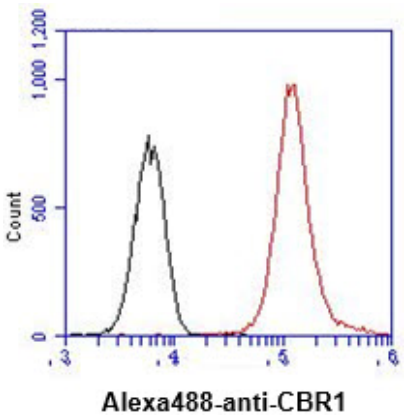

Flow cytometry analysis of CBR1 in HeLa cell line, staining at 2-5ug for 1x10^6cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).