



CEM15 (L-14): sc-27523

BACKGROUND

APOBEC3G (apolipoprotein B mRNA-editing enzyme, catalytic polypeptide-like 3G) is a member of a family of enzymes that have potent DNA mutator activity. APOBEC3G deaminates deoxycytosine to deoxyuracil in the minus strand of HIV-1 DNA, resulting in G to A hypermutation in the plus strand of DNA. Thus, APOBEC3G provides a mechanism for innate immunity to retroviruses and also likely contributes to sequence variation observed in many viruses. Viral infectivity factor (Vif) imparts APOBEC3G resistance to HIV through impaired translation of APOBEC3G mRNA and accelerated posttranslational degradation of APOBEC3G by the 26S proteasome. Interestingly, HIV-1 Vif cannot form a complex with APOBEC3G of mouse origin as it does with the human protein, and thus mouse APOBEC3G functions as a potent inhibitor of wildtype HIV-1 replication, where human APOBEC3G is only able to inhibit Vif-deficient HIV-1 replication. This implies that induction of APOBEC3G activity or a method of blocking its interaction with Vif may provide a method for therapeutic intervention. CEM15 is a 429 amino acid mouse protein that is thought to function as an ortholog of human APOBEC3G.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Apobec3 (mouse) mapping to 15 E2.

SOURCE

CEM15 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CEM15 of mouse origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27523 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CEM15 (L-14) is recommended for detection of CEM15 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CEM15 siRNA (m): sc-60092, CEM15 shRNA Plasmid (m): sc-60092-SH and CEM15 shRNA (m) Lentiviral Particles: sc-60092-V.

Molecular Weight of CEM15: 48 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.