OGG1/2 (G-5): sc-376935

**BACKGROUND**

8-oxoguanine (8-oxoG), an oxidized form of guanine, is produced by reactive oxygen species in both DNA and nucleotide pools during normal aging. Accumulation of 8-oxoG increases the occurrence of A:T to C:G or G:C to T:A transversion mutations, because 8-oxoG forms a stable basepair with adenine as well as with cytosine. OGG1 (for 8-oxoG DNA glycosylase), also designated MMH, is a DNA repair enzyme that corrects these mutations. Inactivation of the OGG1 gene leads to a mutator phenotype, characterized by the increase in G:C to T:A transversions. The OGG1 gene encodes eight isoforms (OGG1A-C, OGG2A-E) which result from alternative splicing of a single messenger RNA. The OGG1A splice variant is the most prevalent form and localizes to the nucleus, whereas the OGG2A splice variant is targeted to the mitochondria.

**CHROMOSOMAL LOCATION**

Genetic locus: OGG1 (human) mapping to 3p25.3; Ogg1 (mouse) mapping to 806b1.5.

**SOURCE**

OGG1/2 (G-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-49 near the N-terminus of OGG1/2 of human origin.

**PRODUCT**

Each vial contains 200 μg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

OGG1/2 (G-5) is available conjugated to agarose (sc-376935 AC), 500 μg/0.25 ml agarose in 1 ml for WB, IHCP, and ELISA; to either phycocerythrin (sc-376935 PE), fluorescein (sc-376935 FITC), Alexa Fluor® 488 (sc-376935 AF488), Alexa Fluor® 546 (sc-376935 AF546), Alexa Fluor® 594 (sc-376935 AF594) or Alexa Fluor® 647 (sc-376935 AF647), 200 μg/ml, for WB, IF, IHCP, and FCM; and to either Alexa Fluor® 680 (sc-376935 AF680) or Alexa Fluor® 790 (sc-376935 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM. Blocking peptide available for competition studies, sc-376935 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**APPLICATIONS**

OGG1/2 (G-5) is recommended for detection of OGG1 and OGG2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 μg per 100-500 μg of total protein [1 ml of cell lysate]), 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 OGG1/2 siRNA (h): sc-39838, OGG1/2 shRNA Plasmid (h): sc-34983-SH and OGG1/2 shRNA (h) Lentiviral Particles: sc-34983-V.


Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

**DATA**

**STORED**

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

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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