

Lactoylglutathione lyase, *syn. gloxalase*

UniProt

Function: Catalyzes the conversion of hemimercaptal, formed from methylglyoxal and glutathione, to S-lactoylglutathione.

Two antibodies: GLO1-1 and GLO1-3 were tested. GLO1-1 and GLO1-3 were approved for IHC and both antibodies were selected for full protein profiling.

GLO1-3 (CAB040542)

Immunohistochemistry

IHC protocol: HIER pH 6, Dilution 1:20000

IHC test staining: Ubiquitous weak cytoplasmic staining. Strong staining in selected tissues, eg prostate, fallopian tube and leydig cells.

IHC Annotators comments

Most of the normal tissues displayed moderate nuclear and/or cytoplasmic positivity. Leydig cells and prostate were strongly stained. Salivary gland, squamous epithelia, bile ducts, breast, cells in seminiferous ducts, trophoblastic cells, smooth and skeletal muscle cells were negative.

Prostate cancers exhibited moderate to strong nuclear and cytoplasmic positivity. Most colorectal, breast and thyroid cancers along with a few malignant melanomas, pancreatic, liver and testicular cancers were moderately stained. Remaining malignancies were weakly stained or negative.

Immunofluorescence

IF Overlay: antibody (green), anti-tubuline (red) and DAPI (blue)

IF Localisation: Staining of cytoplasm and nucleus in all three cell lines. Additional staining of plasma membrane in A-431 and U-2 OS.

IF Validation: Subcellular localization partly supported by literature or where no literature is available.

Western blot

WB Size markers (kDa): 250, 130, 95, 72, 55, 36, 28, 17, 11

WB Lanes: Marker(1), RT-4(2), U251 MG(3), Plasma(4), Liver(5), Tonsil(6)

WB Target weight (kDa): 21

WB Validation: Supportive - Band of predicted size in kDa (+/-20%) with additional bands present.

