

# Novocastra™ Lyophilized Mouse Monoclonal Antibody Glutathione S-Transferase alpha

## Product Code: NCL-GSTal-436

<b>Intended Use</b>	<b>For In Vitro Diagnostic Use:</b> This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
<b>Specificity</b>	Human glutathione S-transferase alpha
<b>Clone</b>	38H11
<b>Ig Class</b>	IgG1
<b>Antigen Used for Immunizations</b>	Prokaryotic recombinant fusion protein corresponding to a 160 amino acid portion of the 220 amino acid liver isoforms of the GSTalpha molecule.
<b>Hybridoma Partner</b>	Mouse myeloma (p3-NS1-Ag4-1)
<b>Preparation</b>	Lyophilized tissue culture supernatant containing 15 mM sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
<b>Effective on Frozen Tissue</b>	Not evaluated
<b>Effective on Paraffin Wax Embedded Tissue</b>	Yes
<b>Recommendations on Use</b>	Immunohistochemistry: Typical working dilution 1:50–1:100. 60 minutes primary antibody incubation at 25 °C. Standard ABC Technique. Western Blotting: Not evaluated.
<b>Positive Controls</b>	Immunohistochemistry: Liver or kidney
<b>Staining Pattern</b>	Nuclear and cytoplasmic
<b>Storage and Stability</b>	Store unopened lyophilized antibody at 4 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
<b>General Overview</b>	The glutathione S-transferases (GSTs) are a multigene family of isoenzymes which catalyze the conjugation of glutathione to electrophilic substrates. These enzymes are involved in the detoxification of both endogenous and exogenous electrophiles which can react with cellular components such as DNA. The cytosolic GST isoenzymes have been classified into four evolutionary classes; alpha, mu, pi and theta. These isoenzymes may be singly or multi-expressed in a variety of normal tissues, including stomach, bowel, brain, heart, liver, pancreas, breast, kidney and skin at differing levels.
<b>General References</b>	Tiltman A J and Haffajee Z. <i>Gynecol. Obstet. Invest.</i> 47 (4): 247–250 (1999). Schipper D I, Wagenmans M J, Peters W H, et al.. <i>Anticancer Research.</i> 16 (6B): 3721–3724 (1996). Segers K, Kumar-Singh S, Weyler J, et al.. <i>Journal of Cancer Research and Clinical Oncology.</i> 122 (10): 619–624 (1996). Murray G I, Taylor V E, McKay J A, et al.. <i>Journal of Pathology.</i> 177: 147–152 (1995). Mehta R, Davis H G, Laver G W, et al.. <i>Cancer Letters.</i> 84: 163–172 (1994). Anttila S, Hirvonen A, Vainio H, et al.. <i>Cancer Research.</i> 53: 5643–5648 (1993). Suzuki T, Johnston P N and Board P G. <i>Genomics.</i> 18: 680–686 (1993). Cairns J, Wright C, Cattan A R, et al.. <i>Journal of Pathology.</i> 166: 19–25 (1992). Klys H S, Whillis D, Howard G, et al.. <i>British Journal of Cancer.</i> 66 (3): 589–593 (1992).

