Product Data

For Research Use Only. Not for Use in Diagnostic Procedures

Anti-HSV-1 and 2 Thymidine kinase (TK) monoclonal antibody

Catalog#: **HS-TK-0280** **Size:** 100µg/100µl

Clone: 2C5.2

Background: Herpes Simplex Virus thymidine kinase (HSV TK) is a salvage pathway enzyme which phosphorylates natural nucleoside substrates as well as nucleoside analogues. This protein may be utilized therapeutically by introducing it into a cell via a viral vector, followed by administration of a nucleoside analogue such as acyclovir or ganciclovir. HSV TK then phosphorylates the nucleoside analogue, creating a toxic product capable of killing the host cell. Thus, use of retroviral vectors which express HSVTK-1 has been suggested for not only the treatment of cancers, but for other diseases as well.

Physical State: This antibody is provided as purified antibody in PBS without preservatives.

Immunogen: Synthetic peptide common to both HSV-1 and HSV-2 thymidine kinase (PAARYLMGSMTPQAVLAF).

Ig Class: **mouse IgG1**

Specificity: This antibody recognizes the HSV-1 and HSV-2 thymidine kinase. Does not recognize other viral or cellular thymidine kinases

Storage: Store at +4^{o}C (stabile up to12 months).
For long term storage aliquot and store at -20^{o}C. Avoid repeated freeze-thawing.

Applications: Immunohistochemistry, immunoprecipitation, western blotting. Recognizes HSV thymidine kinase in paraffin embedded formaldehyde fixed tissues after antigen retrieval.
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Uses and dilutions:

Western blotting: 1/1,000;
Immunohistochemistry: 1/300 - 1/500
Optimal dilutions should be determined by the end user.

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Suggested Preparation for whole cell lysates

Cells are washed in PBS, scraping in PBS if necessary, and harvested by centrifugation. Cell pellets are solubilized directly in 1x SDS Loading buffer (63 mM Tris-HCl, pH 6.8, 2% SDS, 0.0025% Bromphenol Blue, 10% glycerol, 50 mM DTT) at 1x10^{7} cells per ml. The extracts are heated in boiling water bath for 5 minutes and electrophoresed on a 10% Tris-Glycine SDS-PAGE gel. Lysate from approximately 1.5x10^{5} cells (~15 µl) are loaded per lane.

Procedure for immunoblotting using Peroxidase Detection:

Transfer buffer: 12 mM Tris base, 96 mM Glycine, and 15% Methanol.
Blocking solution: 2% milk in PBS, 0.05% Tween-20.
Antibody solution: 2% milk in PBS, 0.05% Tween-20.

Transfer the electrophoresed proteins to a PVDF membrane and incubate the membrane for 30 minutes at room temperature in blocking solution.

Incubate the membrane for 1 hour at room temperature in antibody solution containing a 1:1,000 dilution of the antibody. Empirical determination of primary antibody concentration will be required for optimal results.

Wash the membrane at room temperature for 10 minutes with 2 changes of blocking solution.

Incubate the membrane at room temperature for 1 hour in antibody solution containing a 1:10,000 dilution of anti-mouse conjugated to horseradish peroxidase. Empirical determination of secondary concentration will be required for optimal results.

Wash the membrane for 10 minutes with 3 changes of PBS.

Develop peroxidase reaction using e.g. chemiluminescence or colorimetric reagents.

Spin tube briefly before opening.
Contents may become dispersed during shipment.

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Lot #: 3256C7
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