

#### Instructions For Use

### RA0125-C.5-IFU-RUO

Rev. Date: Oct. 20, 2014

**Revision: 1** 

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P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 - Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

# Glypican-3 (GPC3) (Marker of Hepatocellular Carcinoma); Clone GPC3/863 (Concentrate)

Availability/Contents: Item #\_RA0125-C.5 Volume 0.5 ml

**Description:** 

Species: Mouse

Immunogen: Recombinant human GPC3 protein

Clone: GPC3/863
Isotype: IgG1, kappa
Entrez Gene ID: 2719 (Human)
Hu Chromosome Loc.: Xq26.2

Synonyms: DGSX; Glypican proteoglycan 3; GPC3; GTR2-2; Heparan sulphate proteoglycan; Intestinal

protein OCI-5; MXR7; OCI-5; SDYS; Secreted glypican-3; SGBS1

Mol. Weight of Antigen: 67kDa

Format: 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 1mM PBS

with 0.05% BSA & 0.05% azide.

Specificity: Anti-GPC3 has been identified as a useful tumor marker for the diagnosis of hepatocellular

carcinoma (HCC), hepatoblastoma, melanoma, testicular germ cell tumors, and Wilm's tumor.

Background: Glypican-3 (GPC3) is an integral membrane protein that is mutated in the Simpson-Golabi-

Behmel syndrome (SGBS). SGBS is characterized by pre- and post-natal overgrowth and is a recessive X-linked condition. GPC3 may also be found in a secreted form. In patients with HCC, GPC3 is overexpressed in neoplastic liver tissue and elevated in serum, but is undetectable in normal liver, benign liver, and the serum of healthy donors. GPC3 expression is also found to be higher in HCC liver tissue than in cirrhotic liver or liver with focal lesions such as dysplastic nodules and areas of hepatic adenoma (HA) with malignant transformation. In the context of testicular germ cell tumors, GPC3 expression is up-regulated in certain histologic subtypes, specifically yolk sac tumors and choriocarcinoma. A high level of GPC3 expression has also been found in some types of embryonal tumors, such as Wilm's tumor and hepatoblastoma,

with a low or undetectable expression in normal adjacent tissue.

Species Reactivity: Human. Others not known.

Positive Control: 293T cells or Hepatocellular carcinoma.

Cellular Localization: Cytoplasmic

Titer/ Working Dilution: Immunohistochemistry (Frozen and Formalin-fixed): 0.5-1 µg/ml

Flow Cytometry: 0.5-1 µg/million cells

Immunofluorescence: 0.5-1  $\mu$ g/ml Western Blotting: 0.5-1  $\mu$ g/ml

Immunoprecipitation: 0.5-1 μg/500μg protein lysate

Microbiological State: This product is not sterile.

Storage: 2° C 8° C

ScyTek Laboratories, Inc. 205 South 600 West Logan, UT 84321 U.S.A.

CE

EmergoEurope (31)(0) 70 345-8570 Molsnstraat 15 2513 BH Hague, The Netherlands



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**Uses/Limitations:** Not to be taken internally.

For Research Use Only.

This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded

tissue sections, to be viewed by light

microscopy.

Do not use if reagent becomes cloudy. Do not use past expiration date.

Non-Sterile.

#### Ordering Information and Current Pricing at www.scytek.com

#### Procedure:

- Tissue Section Pretreatment (Required): Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with EDTA Buffer (10X) HIER Solution (pH 8.0) (ScyTek catalog# ETA).
- Primary Antibody Incubation Time: We suggest an incubation period of 30 minutes at room temperature.
   However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
- 3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

#### **Precautions:**

Contains Sodium Azide as a preservative (0.09% w/v).

Do not pipette by mouth.

Avoid contact of reagents and specimens with skin and mucous membranes.

Avoid microbial contamination of reagents or increased nonspecific staining may occur.

This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200,

OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

#### References:

- 1. Yan, B., et al. 2011. Expression and clinicopathologic significance of glypican 3 in hepatocellular carcinoma. Ann. Diagn. Pathol. 15: 162-169.
- 2. Ning, S., et al. 2012. Glypican-3, a novel prognostic marker of hepatocellular cancer, is related with postoperative metastasis and recurrence in hepatocellular cancer patients. Mol. Biol. Rep. 39: 351-357.
- 3. Zhang, L., et al. 2012. Glypican-3 as a potential differential diagnosis marker for hepatocellular carcinoma: a tissue microarray-based study. Acta Histochem. 114: 547-552.

#### Warranty:

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

Storage: 2° C

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