SALL4
Concentrated and Prediluted Monoclonal Antibody
902-384-080917

Catalog Number: ACR 384 A, C
Description: 0.1, 1.0 ml, concentrated
Dilution: 1:100-1:200
Diluent: Renoir Red

Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:
SALL4, a newly identified zinc-finger transcriptional factor, is required for the maintenance of embryonic stem cell pluripotency by modulating Oct4, and is mapped to chromosome 20q13. SALL4 is a novel sensitive and specific marker for seminomas and ovarian primitive germ-cell tumors. Studies demonstrate that over 90% of tumor cells in intratubular germ-cell neoplasias and embryonal carcinomas show strong SALL4 staining. In one study, 100 percent of all 31 yolk sac tumors (5 pediatric and 26 postpubertal) showed strong positive SALL4 staining of tumor cells, but were negative for Oct4. This marker is particularly useful in distinguishing yolk sac tumors from clear cell carcinomas. SALL4 is a promising new pan germ-cell marker and has been shown to be superior to PLAP and Oct4 antibodies.

Source: Mouse monoclonal
Species Reactivity: Human
Clone: 6E3
Isotype: IgG1 Kappa
Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration.

Epitope/Antigen:
SALL4 (NP_065169, 954 a.a. ~ 1054 a.a.) partial recombinant protein with GST tag.

Cellular Localization: Nuclear

Positive Control: Seminoma
Normal Tissue: Testis
Abnormal Tissue: Seminoma

Known Applications:
Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As:
Buffer with protein carrier and preservative.

Storage and Stability:
Store at 2ºC - 8ºC. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

Protocol Recommendations:

Peroxidase Block: Block for 5 minutes with Biocare's PEROXIDAZED 1.

Pretreatment Solution (recommended): Borg or Reveal

Pretreatment Protocol:
Heat Retrieval Method:
Retrieve sections under pressure using Biocare's Decloaking Chamber, followed by a wash in distilled water. Alternatively, steam tissue sections for 45-60 minutes. Allow solution to cool for 10 minutes then wash in distilled water.

Protein Block:
Optional: Incubate for 10-15 minutes at RT with Biocare's Background Sniper.

Primary Antibody: Incubate for 30-45 minutes at RT.

Probe: Incubate for 10 minutes at RT with a probe.

Polymer: Incubate for 10-20 minutes at RT with a polymer.

Chromogen: Incubate for 5 minutes at RT when using Biocare's DAB. - OR - Incubate for 10-20 minutes at RT when using Biocare's Vulcan Fast Red.

Chromogen: Incubate for 5 minutes at RT with Biocare's DAB - OR - Incubate for 5-7 minutes at RT with Biocare's Warp Red.

Counterstain: Counterstain with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute. Rinse with deionized water.

Technical Note:
This antibody has been standardized with Biocare's MACH 4 detection system. It can also be used on an automated staining system and with other Biocare polymer detection kits. Use TBS buffer for washing steps.

Performance Characteristics:
The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions. These products are tools that can be used for interpretation of morphological findings in conjunction with other diagnostic tests and pertinent clinical data by a qualified pathologist.

Quality Control:

Precautions:
This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976)

Specimens before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water. Microbial contamination of reagents may result in an increase in nonspecific staining. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change. The MSDS is available upon request and is located at http://biocare.net/support/msds/.

References:
2. Cao D, et al. SALL4 is a novel sensitive and specific marker of ovarian primitive germ cell tumors and is particularly useful in...
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