Intended Use:
For In Vitro Diagnostic Use
S100P is a rabbit polyclonal antibody that is intended for laboratory use in the qualitative identification of S100P protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient’s clinical history and other diagnostic tests by a qualified pathologist.

Summary and Explanation:
Placental S100 (S100P) binding protein was originally identified in placenta and subsequently associated with cancer. S100P is a member of the S100 family of proteins, which function as extracellular and/or intracellular regulators of diverse cellular processes and participate in various human pathologies. Functional studies of S100P indicate that its biological activities are exerted through extracellular signaling via the RAGE receptor, resulting in increased proliferation and survival; or through intracellular interaction with ezrin, leading to increased cell migration and metastasis. S100P expression has been detected in human tumor cell lines and tissues derived from breast, prostate, pancreas, lung and colon, where it was associated with a malignant phenotype, hormone independence and resistance to chemotherapy. Over-expression of S100P was shown to promote tumorigenesis and metastasis in diverse cancer models. Recent studies have shown that S100P is highly expressed in bladder cancers (poorly differentiated), where expression is localized in the cytoplasm and in the nucleus of the cell. S100P has been shown to be negative in the vast majority of renal cell and prostate carcinomas; thus S100P can be used in the differential diagnosis of bladder, prostate and renal cell carcinomas. Additionally, S100P was useful in the diagnosis of adenocarcinoma of the pancreas in fine-needle aspiration biopsy specimens.

Principle of Procedure:
Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, an enzyme labeled polymer is added to bind to the primary antibody. The detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Rabbit polyclonal
Species Reactivity: Human and dog
Clone: N/A
Isotype: N/A

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration.

Epitope/Antigen: Placental S100
Cellular Localization: Nuclear and cytoplasmic

Positive Tissue Control: Bladder cancer

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

Supplied As: Buffer with protein carrier and preservative

Storage and Stability:
Store at 2°C to 8°C. 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 2°C to 8°C.

Protocol Recommendations:

Peroxide Block: Block for 5 minutes with Biocare’s Peroxidized 1.

Pretreatment: Perform heat retrieval using Biocare’s Reveal Decloaker. Refer to the Reveal Decloaker product data sheet for specific instructions.

Protein Block (Optional): Incubate for 5-10 minutes at RT with Biocare’s Background Punisher.

Primary Antibody: Incubate for 30 minutes at RT.

Probe: N/A

Polymer: Incubate for 30 minutes at RT with a secondary-conjugated polymer.

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. Use TBS buffer for washing steps.

Limitations:
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 titters 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. The clinical interpretation of any positive or negative staining should be evaluated within the context of clinical presentation, morphology and other histopathological criteria by a qualified pathologist. The clinical interpretation of any positive or negative staining should be complemented by morphological studies using proper positive and negative internal and external controls as well as other diagnostic tests.

Quality Control:

Precautions:
1. 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) (6)
2. 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.

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Dilution</th>
<th>Diluent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACI 3010 A, B</td>
<td>0.1, 0.5 ml, concentrated</td>
<td>1:100</td>
<td>Renoir Red</td>
</tr>
<tr>
<td>API 3010 AA</td>
<td>6.0 ml, prediluted</td>
<td>Ready-to-use</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Storage and Stability Cont’d:

ACI 3010 A, B

800-799-9499 | www.biocare.net | Fax: 525-603-8080

60 Berry Drive
Pacheco, CA 94553
USA

EMERGO EUROPE
Primessegracht 20
2514 AP The Hague
The Netherlands
Precautions Cont’d:
and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come into contact with sensitive areas, wash with copious amounts of water. (7)
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The SDS is available upon request and is located at http://biocare.net.

Troubleshooting:
Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare’s Technical Support at 1-800-542-2002.

References: