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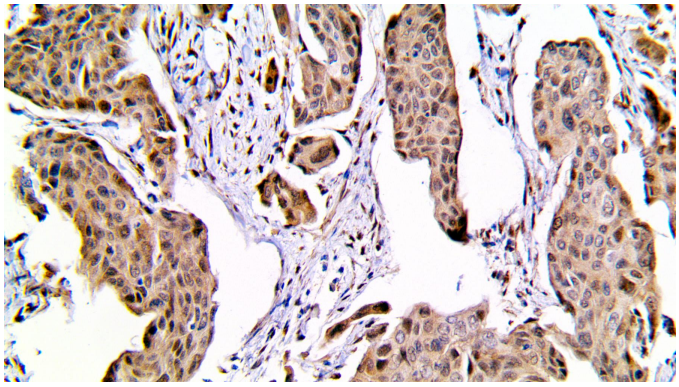
YAP1

Clone: BSB-146
Mouse Monoclonal

CE IVD



Inset: IHC of YAP1 on a FFPE Transitional Cell Carcinoma Tissue

Intended Use
For In Vitro Diagnostic Use.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections, and cell preparations. Interpretation of results should be performed by a qualified medical professional.

Immunogen
Synthetic peptide corresponding to the C-terminus of the human YAP1 protein.

Summary and Explanation
Yes-Associated Protein 1 (YAP1) is a regulatory protein that binds the Src family tyrosine kinase YES, promotes transcriptional activation of cyclin E and inhibition of caspase-induced apoptosis. YAP1 is found in the cytoplasm, though transported into the nucleus to perform its roles in proliferation and assist in tissue repair and growth. YAP1 is essential for cancer growth, contributing to stem-cell-like features of proliferation and metastasis and inducing these features in neighboring cells. YAP1 may be upregulated or have higher nuclear localization in more malignant and metastatic tumors, as seen in Lung, Breast, Colorectal, Liver, Gastric, Pancreatic, and Brain Cancers.

YAP1 It is frequently overexpressed in Mammary carcinoma, Glioblastoma and Squamous Cell Carcinoma, Pancreatic, Oral, Cervical, Ovarian and Lung Cancers. YAP1 has been found to be expressed in fetal and adult brain regions known to harbor neural progenitor cells but there was little YAP1 immunoreactivity in the adult cerebral cortex. YAP1 protein was also readily detected in the nuclei of human brain tumors. In Medulloblastoma, expression varied between histologic subtypes and was most prominent in Nodular/Desmoplastic tumors. In Gliomas it was frequently expressed in infiltrating Astrocytomas and Oligodendrogliomas, but rarely in Pilocytic Astrocytomas. YAP1 immunoreactivity has been found in the nuclei of tumor cells in 64.8% of Clear Cell Renal Cell Carcinoma (ccRCC) patients, whereas only 24.1% of tumors revealed cytoplasmic YAP1 expression with ccRCC patients having cytoplasmic YAP1 immunoexpression had significantly shorter OS (median = 26.8 months) than patients without cytoplasmic YAP1 and concluded that increased cytoplasmic YAP1 (HR = 4.53) and decreased LATS1 immunoreactivity levels (HR = 0.90) were associated with worse prognosis, being independent prognostic factors. These results suggest that YAP1 and LATS1 can be considered as new prognostic factors in ccRCC.

Antibody Type	Mouse Monoclonal	**Clone**	BSB-146
Isotype	IgG1	**Reactivity**	Paraffin, Frozen
Localization	Nuclear, Cytoplasmic	**Species Reactivity**	Human, Mouse, Rat
Control	Placenta, Breast, Fallopian Tube, Testis, Transitional Cell Carcinoma, HER2 Negative Breast Cancer		
Application	Lung Cancer, Head and Neck Cancer, Breast Cancer, Colon and Gastrointestinal Cancer, Liver Cancer, Gallbladder and Pancreatic Cancer, Kidney and Urothelial Cancer, Neural and Neuroendocrine Cancer		

Presentation
Anti-YAP1 is a Mouse Monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

Catalog No.	*Presentation*	*Dilution*	*Volume*
BSB-3755-3	Predilute	Ready-to-Use	3.0 mL
BSB-3755-7	Predilute	Ready-to-Use	7.0 mL
BSB-3755-15	Predilute	Ready-to-Use	15.0 mL
BSB-3755-01	Concentrate	1:25-1:100	0.1 mL
BSB-3755-05	Concentrate	1:25-1:100	0.5 mL
BSB-3755-1	Concentrate	1:25-1:100	1.0 mL

Control Slides Available

Catalog No.	*Quantity*
BSB-3755-CS	5 slides

Storage Store at 2-8°C (Control Slides: Store at 20-25°C)

Precautions
1. For professional users only. Results should be interpreted by a qualified medical professional.
2. This product contains <0.1% sodium azide (NaN_3) as a preservative. Ensure proper handling procedures are used with this reagent.
3. Always wear personal protective equipment such as a laboratory coat, goggles, and gloves when handling reagents.
4. Dispose of unused solution with copious amounts of water.
5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
8. For additional safety information refer to Safety Data Sheet for this product.
9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (see References in this document).

Stability

This product is stable up to the expiration date on the product label. Do not use after expiration date listed on the package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

Specimen Preparation

Paraffin sections: The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033), or ImmunoDNA Digestor (BSB 0108-0112). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

Frozen sections and cell preparations: The antibody can be used on acetone-fixed frozen sections and acetone-fixed cell preparations.

IHC Protocol

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
5. Any of three heating methods may be used:

a. TintoRetriever Pressure Cooker or Equivalent

Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.

b. TintoRetriever PT Module or Water Bath Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.

c. Conventional Steamer Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.

6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual IHC, perform antibody incubation at ambient temperature. For automated IHC methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IHC protocol. Wash slides between each step with ImmunoDNA washer solution.

Abbreviated Immunohistochemical Protocol

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate- Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain / Coverslip	Varies	Varies	Varies

Mounting Protocols

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter (BSB 0169-0174) or organic solvent based resin such as PermaMounter (BSB 0094-0097), refer to PI0174 or PI0097.

Product Limitations

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized, and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

References

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Symbol Key / Légende des symboles/Erläuterung der Symbole

EC REP EMERGO EUROPE Prinsessegracht 20 2514 AP The Hague The Netherlands	Storage Temperature Limites de température Zulässiger Temperaturbereich	Manufacturer Fabricant Hersteller	REF Catalog Number Référence du catalogue Bestellnummer
IVD In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro In-Vitro-Diagnostikum	Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten	Expiration Date Utiliser jusque Verwendbar bis	LOT Lot Number Code du lot Chargenbezeichnung

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