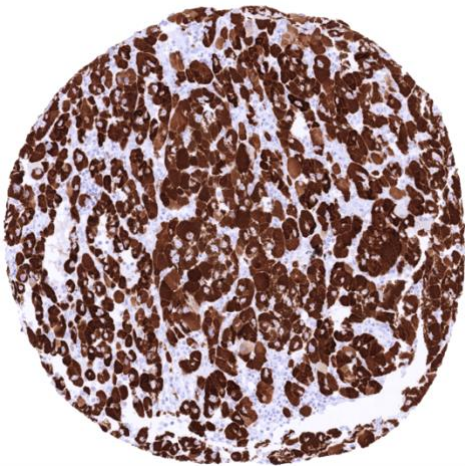


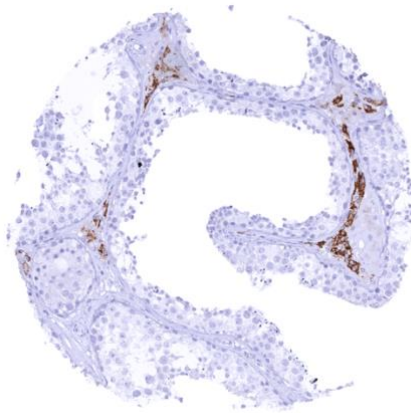
Anti- STAR Antibody MSVA-740R / Recombinant Rabbit monoclonal

Human SwissProt	P49675
Human Gene Symbol	STAR
Synonyms	STARD1
Specificity	STAR
Immunogen	Recombinant human STAR fragment
Isotype	Rabbit / IgG
Species Reactivity	Human

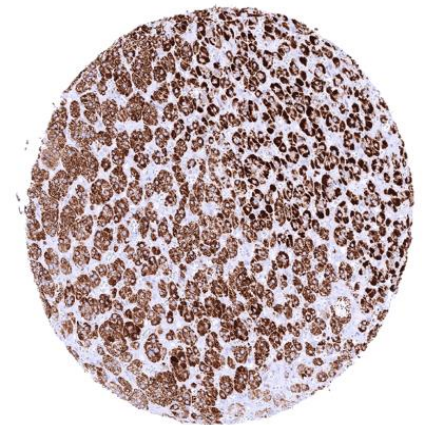
Localization	Intracellular
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Adrenal gland: A moderate to strong cytoplasmic StAR staining should be seen in the vast majority of adrenocortical cells.
Negative Control	Colon: All cells must not show any StAR staining.



Adrenocortical carcinoma showing strong STAR immunostaining of tumor cells



Strong cytoplasmic STAR immunostaining of Leydig cells



Strong STAR staining of normal adrenocortical cells

Biology

Steroidogenic acute regulatory (StAR) protein is a mitochondrial transport protein with a regulatory role for the transport of cholesterol from the outer mitochondrial membrane to the inner membrane which is a rate-limiting step for steroid hormone production. The mechanism by which StAR causes cholesterol movement is not fully understood. StAR can be rapidly synthesized. Steroid synthesis is induced by hormones such as luteinizing hormone (LH), ACTH, and angiotensin II. In normal tissues, a strong cytoplasmic StAR immunostaining occurs in adrenocortical cells, testicular Leydig cells as well as in corpus luteum and theca interna cells of the ovary. A (weaker) staining can be seen in granulosa cells of follicular cysts. StAR staining intensity of adrenocortical cells is quite variable and may be dependent on the functional status of these cells. Among tumors, StAR immunostaining preferentially occurs in Leydig cell tumors of the testis, adrenocortical adenomas and carcinomas as well as in granulosa and theca cell tumors of the ovary. In rare instances a StAR positivity can also be found in various other tumor types.

Potential Research Applications

-Recent studies suggested, that StAR can be expressed in several tissues that produce steroid hormones for local use, potentially conferring some functional

advantage by intracrine, autocrine or paracrine effects. This mechanism needs to be further investigated.

-The mechanism by which StAR exerts its function is unclear.

Protocol Suggestions

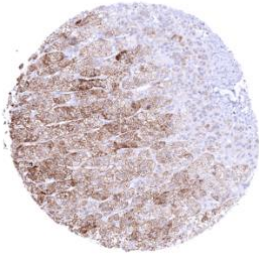
Dilution: 1:150. pH 9,0 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

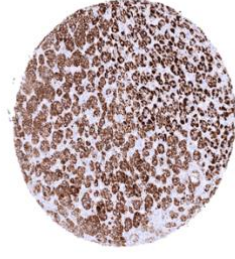
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

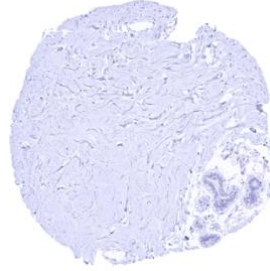
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



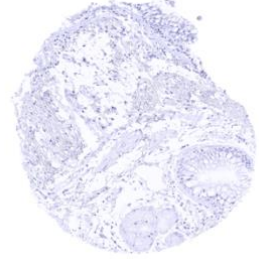
Adrenal gland - StAR staining of variable intensity of adrenocortical cells. Staining variability may be due to the functional status of the cells



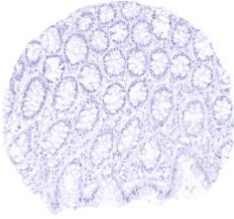
Adrenal gland - Strong StAR staining of adrenocortical cells



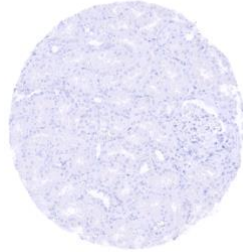
Breast



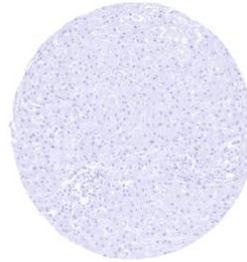
Bronchus, mucosa



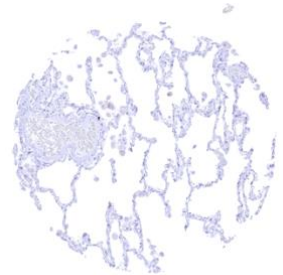
Colon descendens, mucosa



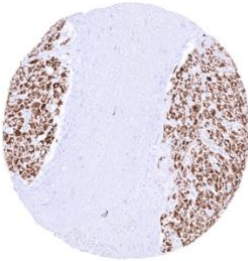
Kidney, cortex



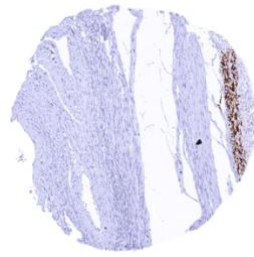
Liver



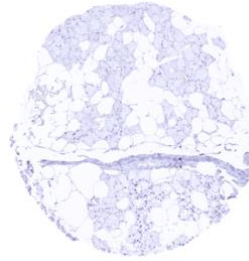
Lung



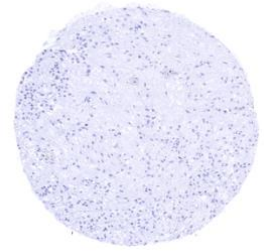
Ovary (corpus luteum) - Strong cytoplasmic StAR staining of corpus luteum cells



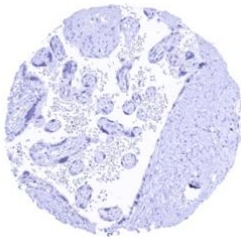
Ovary (follicular cyst) - Strong cytoplasmic StAR staining of theca interna cells of a follicular cyst. A weaker staining can be seen in granulosa cells



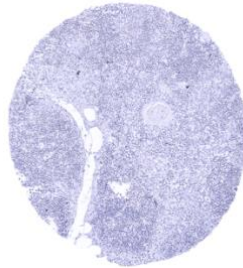
Parotid gland



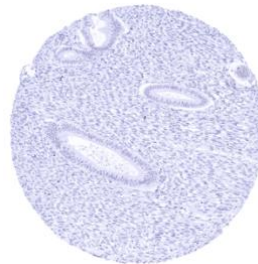
Pituitary, posterior lobe-infundibulum



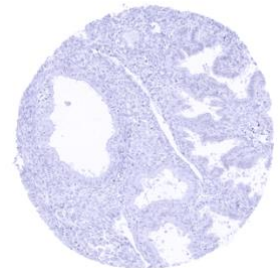
Placenta, mature



Thymus



Uterus, endometrium (proliferation)



Uterus, endometrium (secretion)