MAYO CLINIC LABORATORIES

Test Definition: FSHB

Follicle Stimulating Hormone, Beta Subunit (Beta FSH) Immunostain, Technical Component Only

Overview

Useful For

Classification of pituitary adenomas

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
IHTOI	IHC Initial, Tech Only	No	No
IHTOA	IHC Additional, Tech Only	No	No

Testing Algorithm

For the initial technical component only immunohistochemical (IHC) stain performed, the appropriate bill-only test ID will be reflexed and charged (IHTOI). For each additional technical component only IHC stain performed, an additional bill-only test ID will be reflexed and charged (IHTOA).

Method Name

Immunohistochemistry (IHC)

NY State Available

Yes

Specimen

Specimen Type

TECHONLY

Ordering Guidance

This test includes only technical performance of the stain (no pathologist interpretation is performed). If diagnostic consultation by a pathologist is required, order PATHC / Pathology Consultation.

Shipping Instructions

Attach the green pathology address label and the pink Immunostain Technical Only label included in the kit to the outside of the transport container.

Specimen Required

Specimen Type: Tissue
Supplies: Immunostain Technical Only Envelope (T693)
Container/Tube: Immunostain Technical Only Envelope

Preferred:
-Formalin-fixed, paraffin-embedded tissue block
OR
-2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick
Acceptable: None

Digital Image Access

1. Information on accessing digital images of immunohistochemical (IHC) stains and the manual requisition form can be accessed through this website: https://news.mayocliniclabs.com/ihc-stains/
2. Clients ordering stains using a manual requisition form will not have access to digital images.
3. Clients wishing to access digital images must place the order for IHC stains electronically. Information regarding digital imaging can be accessed through this website: https://news.mayocliniclabs.com/ihc-stains/#FAQ

Forms

If not ordering electronically, complete, print, and send a Immunohistochemical (IHC)/In Situ Hybridization (ISH) Stains Request (T763) with the specimen.

Specimen Minimum Volume

See Specimen Required

Reject Due To

Wet/frozen tissue Cytology smears Nonformalin fixed tissue Nonparaffin embedded tissue Noncharged slides ProbeOn slides Snowcoat slides	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
TECHONLY	Ambient (preferred)		
	Refrigerated		

Clinical & Interpretive

Clinical Information

Follicle stimulating hormone (FSH) stimulates maturation of ovarian follicles and estrogen secretion in female individuals. Sparse population of cells stain positively in normal pituitary gland (approximately 10% of cells). This population of gonadotrophs also produces luteinizing hormone. Immunohistochemical detection of beta FSH may be useful in the classification of pituitary adenomas.

Interpretation

This test does not include pathologist interpretation, only technical performance of the stain. If interpretation is required, order PATHC / Pathology Consultation for a full diagnostic evaluation or second opinion of the case.

The positive and negative controls are verified as showing appropriate immunoreactivity.

Interpretation of this test should be performed in the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

Cautions

Age of a cut paraffin section can affect immunoreactivity. Stability thresholds vary widely among published literature and are antigen dependent. Best practice is for paraffin sections to be cut within 6 weeks.

The charge of glass slides can be affected by environmental factors and subsequently may alter slide staining. Sending unsuitable glass slides can result in inconsistent staining due to poor slide surface chemistry.

Best practices for storage of positively charged slides:
-Minimize time slides are stored after being unpackaged
-Limit exposure to high humidity and heat
-Minimize exposure to plastics

Clinical Reference

1. Hamid Z, Mrak RE, Ijaz MT, Faas FH. Sensitivity and specificity of immunohistochemistry in pituitary adenomas. The Endocrinologist. 2009;19(1):38-43
2. Osamura RY, Kajiya H, Takei M, et al. Pathology of the human pituitary adenomas. Histochem Cell Biol. 2008;130(3):495-507
3. Osamura RY, Watanabe K. Immunohistochemical studies of human FSH producing pituitary adenomas. Virchows Archiv A Pathol Anat Histopathol. 1988;413(1):61-68
4. Pawlikowski M, Pisarek H, Kubiak R, et al. Immunohistochemical detection of FSH receptors in pituitary adenomas and adrenal tumors. Folia Histochem Cytobiol. 2012;50(3):325-330
5. Magaki S, Hojat SA, Wei B, So A, Yong WH. An introduction to the performance of immunohistochemistry. Methods Mol Biol. 2019;1897:289-298. doi:10.1007/978-1-4939-8935-5_25

MAYO CLINIC LABORATORIES

Test Definition: FSHB

Follicle Stimulating Hormone, Beta Subunit (Beta FSH) Immunostain, Technical Component Only

Performance

Method Description
Immunohistochemistry on sections of paraffin-embedded tissue.(Unpublished Mayo method)

PDF Report
No

Day(s) Performed
Monday through Friday

Report Available
1 to 3 days

Specimen Retention Time
Until staining is complete.

Performing Laboratory Location
Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification
This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
88342-TC, primary
88341-TC, if additional IHC

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
FSHB	Beta FSH IHC, Tech Only	Order only;no result

MAYO CLINIC LABORATORIES

Test Definition: FSHB

Follicle Stimulating Hormone, Beta Subunit (Beta FSH) Immunostain, Technical Component Only

Result ID	Test Result Name	Result LOINC® Value
70746	Beta FSH IHC, Tech Only	Bill only; no result