CE
EC REP Emergo Europe, Prinsessegracht 20, 2514AP The Hague, The Netherlands

Anti-GH
[GH/1450]

Catalog No.	Description
AM925-5ME	6 ml of Ready-to-Use Antibody for use with BioGenex Super Sensitive™ Detection Systems OR equivalent detection system
AM925-10ME	10 ml of Ready-to-Use Antibody in a barcode labeled vial for use with BioGenex Super Sensitive™ Detection Systems and i6000™ Automated Staining Systems
MU925-UCE	1 ml of Concentrated Antibody for use with BioGenex Super Sensitive™ Detection Systems OR equivalent detection system
MU925-5UCE	0.5 ml of Concentrated Antibody for use with BioGenex Super Sensitive™ Detection Systems OR equivalent detection system
AX925-YCDE	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx® Elite Staining System, 160 tests
AX925-50DE	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx® Elite Staining System, 50 tests

Clone	Species	Ig Class
GH/1450	Mouse	IgG2b

Intended Use
For In Vitro Diagnostic Use. This antibody is designed for the specific localization of GH in formalin-fixed, paraffin-embedded (FFPE) tissue sections. Evaluation must be performed by a qualified pathologist.

Summary and Explanation
Pituitary growth hormone (GH) plays a crucial role in stimulating and controlling the growth, metabolism and differentiation of many mammalian cell types by modulating the synthesis of multiple mRNA species. These effects are mediated by the binding of GH to its membrane-bound receptor, GHR, and involve a phosphorylation cascade that results in the modulation of numerous signaling pathways. GH is synthesized by acidophilic or somatotropic cells of the anterior pituitary gland. Anti-GH is a useful marker in classification of pituitary tumors and the study of pituitary disease (acromegaly.

Storage and Handling
Store at 2-8°C. Fresh dilutions, if required, should be prepared prior to use and are stable and steady for up to one day at room temperature (20-26°C). Diluted antibody preparations can be refrigerated or frozen for extended shelf life.

Principles of the Procedure
Antigen detection by immunohistochemistry (IHC) is a two-step process wherein the primary antibody binds to the antigen of interest and that binding is detected by a chromogen. The primary antibody may be used in IHC using manual techniques or BioGenex Automated Staining System. Positive and negative controls should always be run simultaneously with all patient specimens.

Reagents Provided
Mouse Monoclonal Antibody to GH is affinity purified and diluted in PBS, pH 7.2, containing 1% BSA and 0.09% sodium azide.

Dilution of Primary Antibody
BioGenex Ready-to-Use antibodies have been optimized for use with the recommended BioGenex Detection System and should not require further dilution.

BioGenex concentrated antibodies must be diluted in accordance with the recommended protocol when used with the recommended BioGenex Detection System.

Recommended Protocol
Refer to the following table for conditions specifically recommended for this antibody. Refer to the BioGenex website for guidance on specific staining protocols or other requirements.

Parameter	BioGenex Recommendations
Control Tissue	Pituitary Gland as available with Biogenex FB-925M* & FG-925M*
Recommended Dilution for Concentrated Antibody	**1:50-100 in HK941**
Recommended Pretreatment (Manual/i6000)**	N/A
Recommended Pretreatment (Xmatrx)	N/A
Antibody Incubation (Manual/i6000)	30-60 min at RT
Antibody Incubation (Xmatrx)	30-60 min at 25°C
Detection System for Manual, Xmatrx & i6000 systems***	Use BioGenex Two-Step **OR** One-Step Super Sensitive™ Polymer-HRP IHC Detection System/DAB; see p. 2 for more information

*FB: positive control micro chamber slides, FG: positive control microscopic slides. Xmatrx requires micro chamber slides.
**Pretreatment times will vary based on individual microwave power.
***For automation systems (Xmatrx-Elite & i6000 Diagnostics), refer to the factory protocols provided with the instrument.

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Detection System	Two-Step HRP Kit	One-Step HRP Kit	Link and Label Kit
Manual	QD440-XAKEN (1000 Test)	QD630-XAKEN (1000 Test)	QP300-XAKE (1000 Test)
	QD430-XAKEN (1000 Test)		
	QD420-YIKEN (500 Test)	QD620-XAKEN (500 Test)	QP900-9LE (500 Test)
	QD400-60KEN (60 Test)		
Xmatrx - Automation	QD550-YCDEN (200 Test)	QD610-YADEN (200 Test)	N/A
i6000 - Automation	QD410-YAXEN (200 Test)	QD610-YAXEN (200 Test)	N/A
For more information, visit www.biogenex.com.			

Precautions

This product contains sodium azide at concentrations of less than 0.1%. Sodium azide is not classified as a hazardous chemical at the product concentrations, but proper handling protocols should be observed. For more information, a Safety Data Sheet (SDS) for sodium azide is available upon request. Dispose of unused reagents according to Local, State and Federal Regulations. Wear suitable Personal Protective Equipment, do not pipette reagents by mouth, and avoid contact of reagents and specimens with skin and mucous membranes. If reagents or specimens come in contact with sensitive area, wash with copious amounts of water.

Quality Control

Refer to BioGenex detection system documents for guidance on general quality control procedures.

Troubleshooting

Refer to the troubleshooting section in the documentation for BioGenex Detection Systems (or equivalent detection systems) for remedial actions on detection system related issues, or contact BioGenex Technical Support Department at 1-800-421-4149 or support@biogenex.com or your local distributor to report unusual staining.

Expected Results

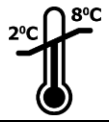
This antibody stains membrane in positive cells in formalin-fixed, paraffin embedded tissue sections. An example image of a tissue section stained with this antibody can be found on the product page on the BioGenex website. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medically-established diagnostic product or procedure.

Limitations of the Procedure

Improper tissue handling and processing prior to immunostaining can lead to inconsistent results. Variations in embedding and fixation or the nature of the tissue may lead to variations in results. Endogenous peroxidase activity or pseudo peroxidase activity in erythrocytes and tissue biotin may result in non-specific staining based on the detection system employed. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems. Improper counterstaining and mounting may compromise the interpretation of results.

Bibliography

1. Niall, H.D., et al. 1971. Sequence of pituitary and placental lactogenic and growth hormones: evolution from a primordial peptide by gene reduplication. Proc. Natl. Acad. Sci. USA 68: 866-869.
2. Deladoëy J … Mullis PE: Autosomal dominant GH deficiency due to an Arg183His GH-1 gene mutation: clinical and molecular evidence of impaired regulated GH secretion. Journal of clincal endocrinology and metabolism 2001 3 4 22 58.
3. Takahashi Y… Chihara K: Biologically inactive growth hormone caused by an amino acid substitution. J clin inves 1997 3 4 22 58.
4. Liu CY … Christiani DC: A Large-scale genetic association study of esophageal adenocarcinoma risk 2010 3 44 58.
5. Center for Disease Control. Decontamination of Laboratory Sink Drains to Remove Azide Salts. Center for Disease Control Manual Guide--Safety Management, No. CDC-22, Atlanta, Georgia. April 30, 1976.
6. Kiernan JA. Histological and Histochemical Methods: Theory and Practice. New York: Pergamon Press 1981.
7. Nadji M, Morales AR. Immunoperoxidase, part 1: the techniques and its pitfall. Lab Med 1983; 14:767-770.
8. Omata M, Liew CT, Ashcavai M, Peters Rl. Nonimmunologic binding of horseradish peroxidase to hepatitis B surface antigen. A possible source of error in immunohistochemistry. Am J Clin Pathol. May, 1980; 73(5):626-632.
9. U.S. Congress. Clinical Laboratory Improvement Amendments of 1988: Final Rule, 57 FR 7163, February 28, 1992.
10. National Institute for Occupational Safety and Health, (NIOSH), Rockville, MD. Explosive azide hazard, Publication No. 78-127, 1976.

	Temperature Limitation	IVD	In Vitro Diagnostic Medical Device
	Use By Date	LOT	Batch Code
	Non-Sterile		Consult Instructions for Use
EC REP	Representative in the European Community		Manufacturer