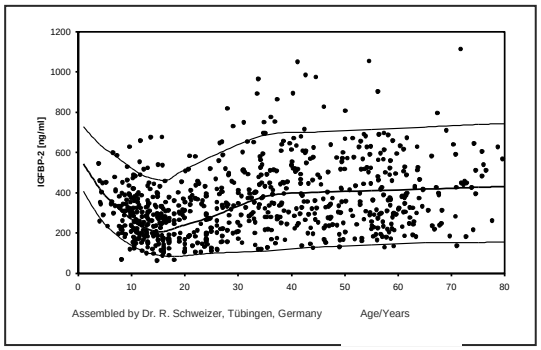
Insulin-like Growth Factor Binding Protein-2 ELISA E05/E08 – human or mouse / rat

Insulin-like growth factors (IGF)-I and -II are bound to specific binding proteins (IGFBPs) in the circulation. Today the existence of at least seven binding proteins and several related proteins has been shown. The second most frequent IGFBP in blood is IGFBP-2. IGFs, especially tumor typical pro-IGF-forms and hormones regulate the expression of IGFBP-2. At cellular level IGFBP-2 seems to stimulate the proliferation and dissemination of solid tumors via an **IGF-independent** mechanism



Reference values of human serum IGFBP-2

IGFBP-2 is a non-glycosylated polypeptide of 31.3 kDa, which forms binary IGF-complexes and shows no circadian rhythm in the circulation. The serum concentration of IGFBP-2 increases in fasting, after major surgery and after trauma, but the increasing of the concentration is most intensive in malignant diseases. The **correlation of the IGFBP-2 level** to the degree of **progression** is a striking feature in **various tumor types** as is the normalization of the IGFBP-serum levels after remission.

During the GH-therapy, e.g. in short stature and in GH-abuse (doping) the IGFBP-2 level decreases. In Trisomy 18 IGFBP-2 in maternal serum is decreased and IGFBP-1 is increased; therefore the ratio IGFBP-2 /IGFBP-1 is a marker for this chromosome abnormality. **Low IGFBP-2 serum levels** were found to be in a study as a significant **indicator for good physical-functional condition** of senior men (positive: muscle power or bone density; negative: adipose mass)

We offer two IGFBP-2 assay systems, one for measurement of IGFBP-2 in human body fluids and one for IGFBP-2 determination **in mouse/rat serum.** The rodent IGFBP-2 assay contains murine IGFBP-2 for calibration but by measurement of recombinant rat IGFBP-2 cross-reactivity has been proven.

Mediagnost HUMAN-IGFBP-2 E05

Based on highly specific polyclonal and monoclonal antibodies. Mediagnost E05 allows quantitative determination of IGFBP-2 in human **serum, plasma, amnion and cerebrospinal fluid** as well as in cell culture supernatants. IGFBP-2 in serum is stable; sample can be taken any time of the day and stored frozen until usage. Recombinant IGFBP-2 was used for calibration. **400 reference values** measured in humans of a broad range of age are available.

No cross reactivity to other components of the IGF system are known. And small sample requirement is **ideal for use in paediatrics**.

Mediagnost IGFBP-2 ELISA has an **European Approval for Clinical Diagnostics**:EC Directive 98/79EG (CE).

Assay Features HUMAN-IGFBP-2 E05

- ✓ Theoretical sensitivity of 0.2 ng/mL
- ✓ Single Standards: 2, 10, 20, 40, 80 ng/mL, **human IGFBP-2**
- ✓ Intra- and Interassay variance ≤ 10%
- ✓ 2 internal control sera: RiliBÄK conform
- ✓ Recovery in serum 97-115%

Mediagnost MOUSE- / RAT-IGFBP-2 E08

For research purposes we offer a Mouse- / Rat-IGFBP-2 ELISA. Highly sensitive monoclonal antibodies allow detection of IGFBP-2 in very small samples (**2.5 µL for duplicates**).

- ✓ Detection limit of **0.01 ng/mL**
- ✓ Standards: 31.25 - 2000 pg/mL **recombinant mouse IGFBP-2**
- ✓ Intra- and Interassay variance <10%
- ✓ Control serum included
- ✓ Linearity shown for 1:100 – 1:320 dilution

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HUMAN-IGFBP-2 ELISA E05

Preparation of reagents:		**Reconstitution:**	**Dilution:**
Before assay procedure bring all reagents to room temperature **20-25°C.**			
A-E	**Standards**	in **750 µL** Dilution Buffer **VP**	-
KS1	**Control Serum 1**	in **100 µL** Dilution Buffer **VP**	**1:21** with Dilution Buffer **VP**
KS2	**Control Serum 2**	in **100 µL** Dilution Buffer **VP**	**1:21** with Dilution Buffer **VP**
WP	**Washing Buffer**	-	**1:20** with **Aqua dest.**
Sample dilution: with Dilution Buffer **VP 1:21**			

Assay Procedure in Double Determination:

Pipettie	**Reagents**	**Position**
100 µL	Dilution Buffer **VP** (Blank)	A1/A2
100 µL	Standard **A** (**2 ng/mL**)	B1/B2
100 µL	Standard **B** (**10 ng/mL**)	C1/C2
100 µL	Standard **C** (**20 ng/mL**)	D1/D2
100 µL	Standard **D** (**40 ng/mL**)	E1/E2
100 µL	Standard **E** (**80 ng/mL**)	F1/F2
100 µL	Control Serum (1:21 diluted)	G1/A2
100 µL	Control Serum (1:21 diluted)	A3/A4
100 µL	Sample (1:21 diluted)	in the rest of the wells according the requirements
Cover the wells with the sealing tape.		
Sample Incubation: 1 h at 20-25°C, 350 rpm		
5x 300 µL	Aspirate the contents of the wells and wash **5 x** with **300 µL** each Washing Buffer WP/ well.	In each well
100 µL	Antibody Conjugate **AK**	In each well
Cover the wells with the sealing tape.		
Incubation: 30 min at 20-25°C, 350 rpm		
5x 300 µL	Aspirate the contents of the wells and wash **5 x** with **300 µL** each Washing Buffer **WP/ well**.	In each well
100 µL	Substrate Solution **S**	In each well
Substrat S Incubation: 15 min in the Dark at 20-25°C		
100 µL	Stopping Solution **SL**	In jede Vertiefung
Measure the absorbance within 30 min at **450 nm** with ≥ 590 nm as reference wavelength.		

Mouse/Rat-IGFBP-2 ELISA E08

Preparation of reagents:		**Reconstitution:**	**Dilution:**
Before assay procedure bring all reagents to room temperature **20-25°C.**			
A-G	**Standards**	in **1 mL** Dilution Buffer **VP**	-
KS	**Control Serum**	in **250 µL** Dilution Buffer **VP**	**1:100** with Dilution Buffer **VP**
AK	**Antbody Conjugate**	-	**1:100** with Dilution Buffer **VP**
EK	**Enzyme Conjugate**	-	**1:100** with Dilution Buffer **VP**
WP	**Washing Buffer**	-	**1:20** with **Aqua dest.**
Sample dilution: with Dilution Buffer **VP 1:100**			

Assay Procedure in Double Determination:

Pipettie	**Reagents**	**Position**
100 µL	Dilution Buffer **VP** (Blank)	A1/A2
100 µL	Standard **A** (**31.25 pg/mL**)	B1/B2
100 µL	Standard **B** (**62.5 pg/mL**)	C1/C2
100 µL	Standard **C** (**125 pg/mL**)	D1/D2
100 µL	Standard **D** (**250 pg/mL**)	E1/E2
100 µL	Standard **E** (**500 pg/mL**)	F1/F2
100 µL	Standard **F** (**1000 pg/mL**)	G1/G2
100 µL	Standard **G** (**2000 pg/mL**)	H1/H2
100 µL	Control Serum (1:100 diluted)	A3/A4
100 µL	Sample (1:100 diluted)	in the rest of the wells according the requirements
Cover the wells with the sealing tape.		
Sample Incubation: 1 h at 20-25°C, 350 rpm		
5x 300 µL	Aspirate the contents of the wells and wash **5 x** with **300 µL** each Washing Buffer WP/ well.	In each well
100 µL	Antibody Conjugate **AK (1:100 diluted)**	In each well
Cover the wells with the sealing tape.		
Incubation: 1 h at 20-25°C, 350 rpm		
5x 300 µL	Aspirate the contents of the wells and wash **5 x** with **300 µL** each Washing Buffer **WP/ well**.	In each well
100 µL	Enzyme Conjugate **EK (1:100 diluted)**	In each well
Cover the wells with the sealing tape.		
Incubation: 0.5 h at 20-25°C, 350 rpm		
5x 300 µL	Aspirate the contents of the wells and wash **5 x** with **300 µL** each Washing Buffer **WP/ well**.	In each well
100 µL	Substrate Solution **S**	In each well
Substrat S Incubation: 0.5 h in the Dark at 20-25°C		
100 µL	Stopping Solution **SL**	In jede Vertiefung
Measure the absorbance within 30 min at **450 nm** with ≥ 590 nm as reference wavelength.		

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