

## PRODUCT INFORMATION SUMMARY

### Human Midkine "SUPER X" ELISA Kit

Product Number **RHF911CKX**  
5 Plate Kit ( 5 x 96 tests)  
**RHF911CKX2** ( 2 x 96 tests)  
**RHF911CKX1** ( 1 x 96 tests )

#### Items Provided:

**PRE-COATED ELISA Plates** ( Single, 2 or 5 plates)  
Biotin-Labeled tracer 25.0 ug or 0.5 mL - **see vial**  
Antigen Standard 5.0 ug or 1.0 ug ( **see vial**)  
Streptavidin-HRP 0.5 mL  
TMB Substrate 25 mL x 2 ( 15 mL - 2 plate)  
Wash Buffer Concentrate 125 mL ( 20X) ( 50 mL - 2 plate)

#### DESCRIPTION:

Human Midkine **SUPER X ELISA Kit** provides one, to or five **PRE-COATED** microplates ( coated with antigen affinity purified capture antibody stabilized with our proprietary ELISA coating/blocking reagent. A biotin labeled tracer antibody, antigen standard, HRP developing reagents and wash buffer are included.

Reactivity with various sample types, including serum/plasma samples, is evaluated by customer.

Note: Reconstitute components only when ready to run assay.

#### TRACER ANTIBODY:

Provided as 25 ug ( lyophilized ) or as 0.5 mL liquid @ 33.0 ug/mL ( **see vial**) of Biotin labeled, antigen-affinity purified antibody, additive-free. Reconstitute the 25 ug ( lyophilized vial) in 500 uL sterile water **containing 0.1% BSA**. ( FREEZE aliquots for long-term storage). -

**\*\*For liquid vial store refrigerated only ( contains preservative)\*\*.**

**STANDARD:** Provided as 1.0 ug or 5.0 ug of recombinant Human Midkine ( see vial). Quick-spin and **reconstitute in distilled water** (pH 8.0) - concentration approx. 0.1 mg/mL. Further dilutions can be made in 0.05% Tween-20, 0.1% BSA in PBS.

#### DEVELOPING REAGENTS:

- Streptavidin-HRP ( S100180CX) 1.0 mL - **store @ -20 Deg. C.**
- TMB Substrate Solutions - Part A and Part B ( 25.0 mL each) cat # ES200CX
- Wash Buffer Concentrate (20X concentrate) Mix 1 volume of wash buffer with 19 volumes of distilled water. Stable for one month

@ 4 Deg. C. once mixed to working volume. Concentrate may be stored at room temperature ( 20 Deg. C.).

**HANDLING/ STORAGE:** Reconstitute reagents when ready to build ELISA assay. Tracer Antibody provided as 25.0 ug lyophilized may be stored for approximately one month at 4 Degrees C. Or store **frozen** at -20 Degrees C. for up to 6 months.

Biotin tracer antibody provided as 0.5 mL liquid - STORE refrigerated - contains preservative.

Standard ( rec. Midkine) can be stored in liquid state ( @ 4 Deg. C.) For up to one week, or store **frozen, with addition of 0.1% BSA**, at -20 Deg. C. for up to 2 months. AVOID repeat freeze-thaw. Pre-coated ELISA plates should be stored in sealed plastic bag with desiccant pack, and are stable for one year from date of receipt. If needed, additional components ( antigen standard or developing reagents) can be purchased as separate items to run additional stored plates - inquire.

**Store** Streptavidin-HRP ( S100180XH) **frozen** @ -20 Deg. C.

Store TMB solutions and wash buffer concentrate at 4 Deg. C.

**CAUTION: Substrate Solution B contains 20% acetone. FLAMMABLE.**  
**Keep away from sources of heat or flame.**

#### **MATERIALS RECOMMENDED:**

Tween -20.

BSA ( ELISA grade only, protease-free)

Dubelco's PBS (10X)

PBS: Dilute to 1XPBS in sterile water

**Diluent:** use : 0.05% Tween-20, 0.1% BSA in PBS

2N Sulfuric acid ( stop solution).

#### **PLATE PREPARATION:**

Plates are **pre-coated** with capture antibody and blocked/stabilized with ANTIGENIX proprietary ELISA coating stabilizer ( EA150) and are **ready to use!**

Store plates refrigerated ( @ 4 Deg. C.) in sealed plastic bags with desiccant pack. Plates can be stored for one year from data of receipt.

#### **PROTOCOL:**

STANDARD/SAMPLE: Dilute **a portion of the** standard ( store unused standard in aliquots, high concentration, frozen -20 Deg. C. with addition of 0.1% BSA) from **3.0 ng/mL** to zero in diluent

(serial dilution). Immediately add 100 uL of standard or sample to each well in duplicate. **Incubate** at room temp. for **1 hour**.

**DETECTION:** Aspirate and wash plate 4 times. **Dilute** detection (Biotin Tracer) antibody in diluent to concentration of **0.10 ug/mL**. Add 100 uL per well. **Incubate** at room temperature for **45 minutes**.

**STREPTAVIDIN-HRP:** Aspirate and wash plate 4 times. **Dilute** Streptavidin-HRP conjugate approx. **1:2,500** in diluent. (May need to optimize) Add 100 uL per well, incubate 30 minutes at room temperature.

**SUBSTRATE: Prepare substrate solution** no more than 15 minutes before last incubation of assay: Mix one part TMB Solution A with one part TMB Solution B in a clean container. If, upon mixing, TMB solution turns blue - TMB solution is **contaminated-DO NOT USE**. Use mixed substrate solution **WITHIN 2 Hours, and AVOID DIRECT LIGHT**.

Aspirate and wash plate 4 times. **Note:** Wash steps are critical! Add 100 uL substrate solution to each well. **Incubate** at room temp. for color development. **Add 100 uL of Stop solution** may be added ( 2N Sulfuric Acid) **within 10-15 minutes** to stop color development - gently tap plate to mix. **Read plate at 450 nm** within 30 minutes of addition of stop solution.

NOTE: reliable standard curves are obtained when O.D. readings do not exceed 0.30 units for the zero standard concentration, or 2.0 units for the highest standard concentration.

#### **X-REACTIVITY DATA:**

The following factors were tested @ 40-50 ng/mL:

No measurable X-reactivity observed with following:

Human: BDNF; GDNF; Persephin; NT-3; NT-4; Artemin; NGF-beta  
Neurturin.

**RESEARCH USE ONLY -NOT For DIAGNOSTIC USE**