# PRODUCT INFORMATION SUMMARY

# Mouse KC ELISA Construction Kit

Product Number RMF428CK Product Number RMF428CKC Approx. 960 tests With Developing Reagents:

Capture Antibody25.0 ugELISA Coating Stabilizer50 mLBiotin-Labeled tracer25.0 ugStreptavidin-HRP1.0 mLAntigen Standard1.0 or 5.0 ugTMB Substrate (50 mL x 2)WASH Buffer (20X) 100 mL

#### DESCRIPTION:

Mouse KC (Gro Alpha) ELISA CONSTRUCTION Kit provides antigen affinity purified capture and tracer antibodies, and antigen standard for development of **approximately** ten microplate assays. Working concentrations must be optimized by customer.

Note: Reconstitute components only when ready to run assay.

## CAPTURE ANTIBODY:

Provided as lyophilized, 25.0~ug, additive-free. Reconstitute in 0.50 mL sterile water (50.0 ug/mL). (FREEZE aliquots for long-term storage)

#### TRACER ANTIBODY:

Provided as 25 ug (lyophilized) or as 0.5 mL liquid @ 50.0 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 ( see vial) of recombinant Mouse KC. Quick-spin and reconstitute in 50 uL of sterile water (pH 7.2). Further dilutions can be made in 0.05% Tween-20, 0.1% BSA in PBS.

DEVELOPING REAGENTS: Supplied with catalog # ending in "CKC".

- ELISA Coating/ Blocking Reagent (EA150C) 50.0 mL (5X Solution)
- Streptavidin-HRP ( S100180C) 1.0 mL store @ -20 Deg. C.
- TMB Substrate Solutions Part A and Part B ( 50.0 mL each) cat # ES200C
- WASH Buffer (20X)-Dilute 1 part with 19 parts distilled water

**HANDLING/ STORAGE:** Reconstitute reagents when ready to build ELISA assay. Antibodies (Capture and Tracer) can be stored for approximately one month at 4 Degrees C. Or store **frozen** at -20 Degrees C. for up to 6 months.

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

Standard (rec. Mouse KC) 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.

#### MATERIALS RECOMMENDED:

ELISA Microplates: Nunc Maxisorp, Prod. # 4420404 Tween -20.

BSA

Streptavidin-HRP: ANTIGENIX Cat no. **S100180** or similar

TMB Substrate : ANTIGENIX cat # ES200 or similar

Dubelco's PBS (10X)

ANTIGENIX ELISA Coating Stabilizer (cat no: EA150)

#### RECOMMENDED SOLUTIONS:

See ANTIGENIX Developing Reagents above.

PBS: Dilute to 1XPBS in sterile water

WASH BUFFER: ANTIGENIX WB200 or 0.05% Tween-20 in PBS.

BLOCK BUFFER: use ANTIGENIX AMERICA coating stabilizer (EA150)

or 1% BSA in PBS

Substrate Solution: TMB Substrate Solution (cat # ES200)

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

**2N** Sulfuric acid (stop solution)

#### PLATE PREPARATION:

1. Dilute **portion** of capture antibody with 0.05M Carbonate buffer (or PBS) to concentration **0.25 ug/mL**.

Immediately add 100 uL to each ELISA well. Seal the plate and incubate overnight at room temperature.

- 2. Aspirate wells to remove all liquid and wash 4 times using 300 uL of wash buffer per well. After last wash, add 200 uL ANTIGENIX AMERICA ELISA coating stabilizer (cat # EA150) and incubate for 60 minutes at room temperature. (With coating stabilizer, DO NOT let plate dry prior to use of coating stabilizer. This will stabilize and Block in one step! Refer to data sheet EA150 for complete description of use.
- 3. With ANTIGENIX coating stabilizer ( **recommended** ) aspirate plate but **DO NOT WASH**. Dry plate in humidity controlled chamber or similar. ( see data sheet EA150). With standard block reagent, aspirate plate and wash 3X with 300 uL wash buffer.

#### PROTOCOL:

STANDARD/SAMPLE: **Dilute a portion of the** standard ( store unused standard in aliquots, high concentration, frozen -20 Deg. C.) from **2.0 ng/mL** (serial dilution). Immediately add 100 uL of standard or sample to each well in duplicate. Incubate at room temp. for approx. 2 hours.

DETECTION: Aspirate and wash plate 4 times. **Dilute** a portion of the detection (Biotin Tracer) antibody in diluent to concentration of **0.20 ug/mL**. Add 100 uL per well. Incubate at room temperature for 1-2 hours. Note: detection antibody can be used in approximate range of 0.10 - 0.50 ug/mL, you may need to optimize for subsequent plates.

STREPTAVIDIN-HRP: Aspirate and wash plate 4 times. Dilute Streptavidin-HRP conjugate approx. 1:2,000 in diluent (follow recommended dilution of manufacturer). (May need to optimize) Add 100 uL per well, incubate 30 minutes at room temperature.

SUBSTRATE: Aspirate and wash plate 4 times. Prepare and add 100 uL substrate solution (cat no: ES200) to each well (follow directions for substrate preparation and handling from manufacturer's data sheet). Incubate at room temp. for color development. Monitor color development with plate reader at 650 nm wavelength. (for blue color). Stop the color reaction after 10 - 20 minutes by adding 100 uL of 2N Sulfuric acid to each well. Then, read plate @ 450 nm after addition of stop solution.

NOTE: reliable standard curves are obtained when O.D. readings do not exceed 0.25 units for the zero standard concentration, or 2.0 units for the highest standard concentration. Monitor the plate every 5 minutes for approximately 30 minutes.

## RESEARCH USE ONLY -NOT For DIAGNOSTIC USE

**NOTE:** Kit can be ordered with the following developing reagents (suitable for approx. 1,000 wells - ten microplates) or order separately (larger sizes) as below:

# **ELISA Construction Kits Accessory Reagents Available:**

Streptavidin-HRP; S100180, 1.0 mL \$ 190.00 USD; suitable for 5,000 ELISA wells

**TMB Substrate**; **ES200**, 100 mL x 2, \$95.00; suitable for 2,000 ELISA wells

**ELISA Coating Stabilizer**; **EA150**; \$195.00, 100 mL (5X); suitable for 2,500 wells

Get All three reagents above as "ELISA Construction Pack"; EA700; \$410.00 USD.

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