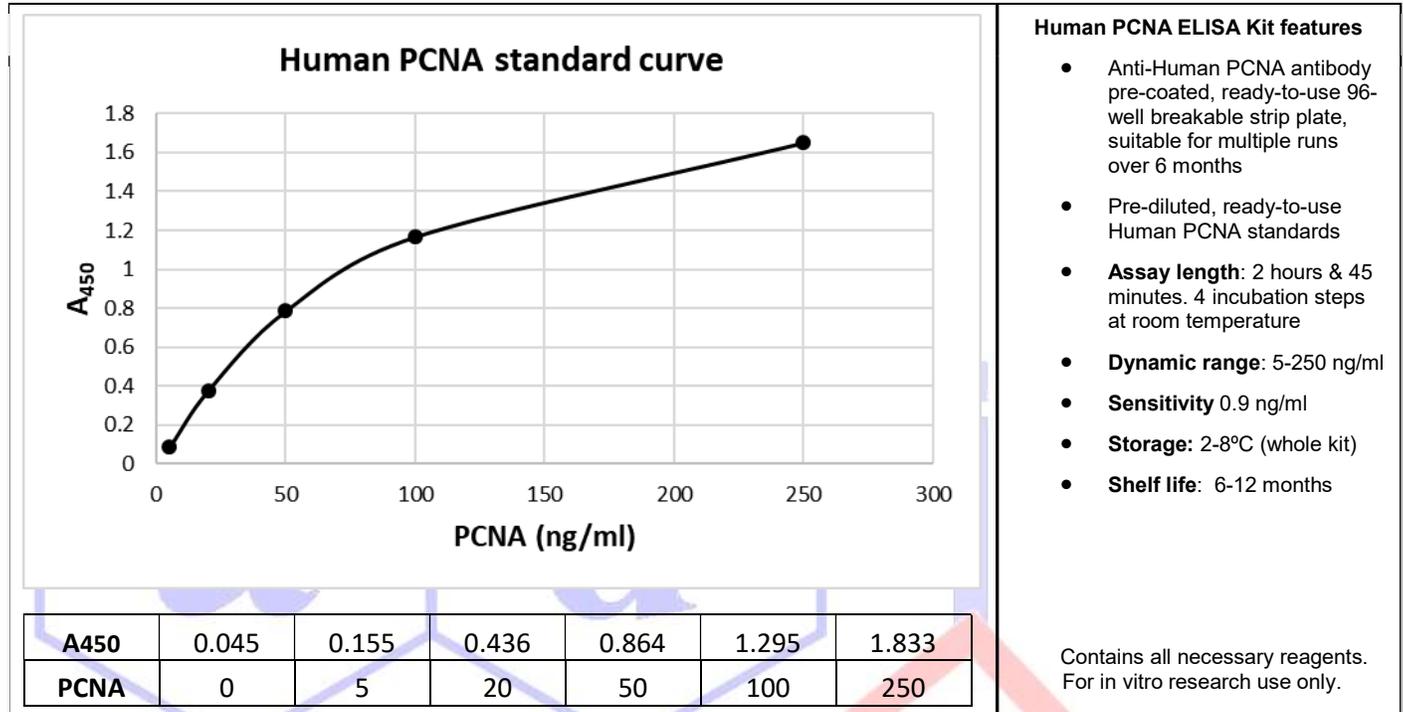


PCNA ELISA Kit Cat# 5035

The Human PCNA ELISA Kit is a highly sensitive sandwich ELISA for the measurement of Human PCNA in tissue and cell lysates or other appropriately qualified matrices.



Assay Procedure: Allow all reagents to reach room temperature. Arrange and label required number of strips.

- Step 1.** Pipette 100 ul of appropriately diluted samples and calibrators into wells and incubate for 1 hour at room temperature.
- Step 2.** Wash the wells 3X with 300 ul of wash buffer for each well
- Step 3.** Add 100 ul of biotin conjugated detection antibody to each well and incubate for 1 hour at room temperature
- Step 4.** Wash the wells 3X with 300 ul of wash buffer for each well
- Step 5.** Add 100 ul Streptavidin-HRP detection reagent to each well and incubate for 30 minutes at room temperature
- Step 6.** Wash the wells 3X with 300 ul of wash buffer for each well
- Step 7.** Add 100 ul of TMB Substrate solution to all wells, mix gently, and incubate at room temperature for 15 minutes.
- Step 8.** Pipette 100 ul of stop solution into each well and mix gently. Measure at 450 nm w/ 630 nm as a reference filter if available.

Performance Characteristics

Sensitivity: 0.9 ng/ml

Average recovery: 100 ±20%

Average linearity: 100 ±20%

Precision: Intra-assay: <10% Inter-assay: <10%

Species cross reactivity: Due to the high degree of homology, reactivity is expected with Non-human primates, Dog, Pig, Cat, Sheep, Bovine, Rat, Horse, Mouse, and Chicken. Reactivity has only been confirmed for Human samples.

Minimum recommended dilution

Tissue and cell lysates: 10-fold

Note: Minimum recommended dilution represents the dilution which is needed to eliminate matrix interference effects. All samples must be diluted to at least the minimum recommended ratio. Samples may be further diluted if the sample values fall within the standard curve, if sample volume is to be preserved, or if the sample value is above the highest OD on the standard curve

General Information

PCNA (Proliferating cell nuclear antigen) PCNA is a DNA clamp that acts as a processivity factor for DNA polymerase δ in eukaryotic cells and is essential for replication. PCNA is a homotrimer and achieves its processivity by encircling the DNA, where it acts as a scaffold to recruit proteins involved in DNA replication, DNA repair, chromatin remodeling and epigenetics. The sequence of PCNA is well conserved between plants and animals, indicating a strong selective pressure for structure conservation, and suggesting that this type of DNA replication mechanism is conserved throughout eukaryotes. In *Saccharomyces cerevisiae* (Baker's yeast), POL30, is associated with polymerase III, the yeast analog of polymerase delta. PCNA is also able to interact with a wide variety of cell cycle proteins and serves to coordinate several proteins participating in DNA processes, such as apoptosis.