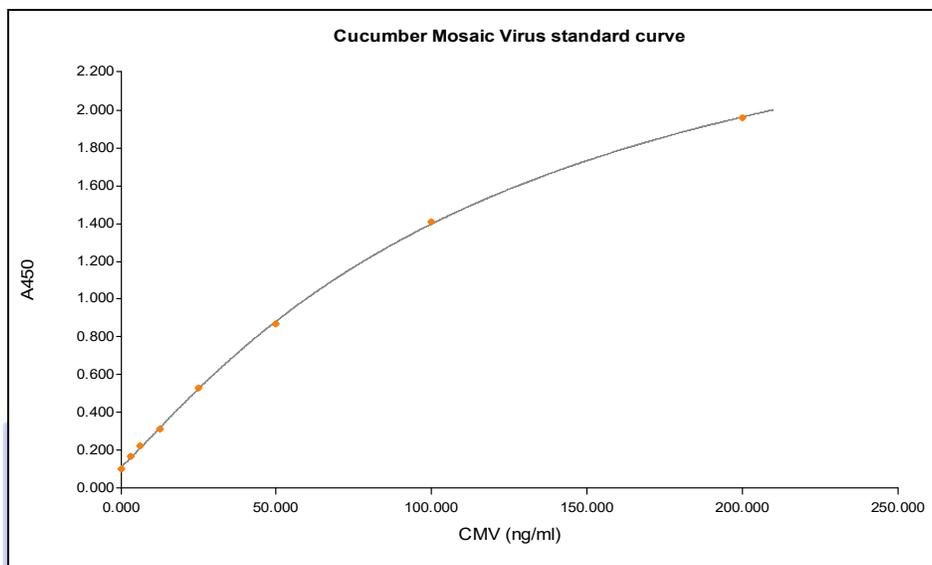


**Cucumber Mosaic Virus ELISA Kit Cat# POTY-096**

The Cucumber Mosaic Virus ELISA Kit is a highly sensitive sandwich ELISA for the measurement of Cucumber Mosaic Virus in plant extracts



**Cucumber Mosaic Virus ELISA Kit features**

- Anti-CMV antibody pre-coated, ready-to-use 96-well breakable strip plate, suitable for multiple runs over 6-12 months
- Recombinant CMV Coat protein standard
- **Assay length:** 3 hours & 45 minutes. 4 incubation steps at room temperature
- **Dynamic range:** 3.125-200 ng/ml
- **Sensitivity** 587 pg/ml
- **Storage:** 2-8°C (whole kit)
- **Shelf life:** 6-12 months

Contains all necessary reagents  
*For in vitro research use only*

| CMV (ng/ml) | 0   | 3.125 | 6.25  | 12.5  | 25   | 50   | 100   | 200   |
|-------------|-----|-------|-------|-------|------|------|-------|-------|
| <b>A450</b> | 0.1 | 0.17  | 0.224 | 0.312 | 0.53 | 0.87 | 1.409 | 1.959 |

**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 2 hours 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 of Streptavidin HRP conjugate 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:** ~587 pg/ml  
**Average recovery:** 87%  
**Average linearity:** 97.23%  
**Precision:** Intra-assay: <10%      Inter-assay: <10%

**Minimum recommended dilution**

**Plant extracts: 10-fold**

**Note:** Minimum recommended dilution represents the dilution which is needed to eliminate matrix interference effects and obtain optimal recovery. 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**

Cucumber mosaic virus (CMV) is a plant pathogenic virus in the family Bromoviridae. It is a member of the genus, Cucumovirus. CMV is a linear positive-sense, single-stranded RNA virus. Its total genome size is 8.621 kb and is broken into three parts. The largest part is 3.389 kb; the second largest is 3.035 kb and the third largest is 2.197 kb. The RNA is surrounded by a protein coat consisting of 32 copies of a single structural protein which form isometric particles. The virus has a worldwide distribution and a very wide host range. It has one of the widest known host ranges of any plant virus. It can be transmitted from plant to plant both mechanically by sap and by aphids. It can also be transmitted by seeds and parasitic weeds. The virus can be diagnosed by its characteristic viral inclusion bodies. The inclusions can be rhomboidal, may appear hollow, and can form larger aggregates. The inclusions can be found in epidermal, mesophyll, and stomatal cells. Symptoms seen with the virus include leaf mosaic or mottling, yellowing, ringspots, stunting, and leaf, flower, and fruit distortion.