CHEESE FRAUD ELISA (5171BKCC)

General

EuroProxima provides 3 ELISA kits for the detection of adulteration of food with bovine milk. The tests are based on monoclonal antibodies directed against small epitopes specific for bovine κ -casein protein. For fraud with cheese identity, a monoclonal antibody directed against a small epitope on the para-κ-casein part of the protein is used. The applied antibody is specific for the detection of cow's and buffalo's milk.

The **Cheese Fraud ELISA** is a competitive enzyme immunoassay based on antibodies directed against para-κ-casein.

Kit characteristics

***Microtiter plate*:**
96 wells
12 x 8 Breakapart

Conjugate:
mAb-HRP stabilized

Standard range (ready-to-use)
0, 0.64, 1.60, 4, 10, 25 µg/ml

References

1. Haasnoot W, Sajic N, Doorn Essers K, Streppel L, Verheijen R. (2014) ELISA for Raw and Heat-Treated Cow's and Buffalo's Milk in the Milk of Other Species and Sources. Journal of Advances in Dairy Research 2: 118.
2. Bremer MGEG, Kemmers-Voncken AEM, Boers EAM, Frankhuizen R, Haasnoot W (2008) Enzyme-linked immunosorbent assay for the detection of bovine rennet whey powder in milk powder and buttermilk powder. International Dairy Journal 18, 294-302.
3. Haasnoot W, Smits NG, Kemmers-Voncken AE, Bremer MG. (2004) Fast biosensor immunoassays for the detection of cows' milk in the milk of ewes and goats. J Dairy Research 71(3):322-329.

Assay characteristics

Limit of Detection (LOD) of cow's milk in cheese is 1%.

A sample preparation method with the use of urea buffer is described in the manual.

Procedure
Diluted samples/standard solutions and conjugate are pipetted in the wells of the ready-to-use microtiter plate and incubated for 1 hour at 20°C - 25°C. After a washing procedure ready-to-use substrate is added and incubated for 30 minutes at 20°C - 25°C. The reaction is stopped and the absorbance is read in a spectrophotometer at 450 nm.
EuroProxima's user-friendly software converts the measured optical density into the concentration of the metabolite in the starting material.