# **PULMONARY DISEASES**

# Immunoassays

# HUMAN SURFACTANT PROTEIN D ELISA

## Cat. No.: RD194059101

## IVD CE

### **Intended use**

The RD194059101 Human Surfactant Protein D ELISA is a sandwich enzyme immunoassay for the quantitative measurement of human surfactant protein D in serum, plasma bronchoalveolar lavage fluid and amniotic fluid.

- > The total assay time is less than 5 hours.
- The kit measures total surfactant protein D in serum, plasma (EDTA, citrate, heparin), bronchoalveolar lavage fluid and amniotic fluid.
- > Assay format is 96 wells.
- > Quality Controls are human serum based. No animal sera are used.
- Standards are recombinant protein based.
- Components of the kit are provided ready to use, concentrated or lyophilized.

### **Clinical application**

- Infection and inflammation
- > Acute interstimal pneumonia (ARDS)
- > Alveolar capillary displasia and alveolar proteinase
- Asthma
- > Bronchopulmonary displasia
- > Cystic fibrosis
- > Chronic obstructive pulmonary disease

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### **Test principle**

In the BioVendor Human Surfactant Protein D ELISA, Standards, Quality Controls and samples are incubated in microplate wells pre-coated with monoclonal anti-human surfactant protein D antibody. After 120 minutes incubation and washing, biotin labelled monoclonal antihuman SP-D antibody is added and incubated with the captured SP-D for 60 minutes. After another washing, streptavidin-HRP conjugate is added. After 60 minutes incubation and the last washing step, the re-

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Assay format	Sandwich ELISA, Biotin-labelled antibody, 96 wells/kit
Samples	Amniotic fluid, Bronchoalveolar lavage, Plasma (citrate, EDTA, heparin) Serum - dilution 11×
Controls	QC-Low, QC-High
Standards	1.56 to 100 ng/ml
Limit of detection	0.01 ng/ml
Cross-reactivity	Bovine, Horse, Monkey



maining HRP conjugate is allowed to react with the substrate solution (TMB). The reaction is stopped by addition of acidic solution and absorbance of the resulting yellow product is measured. The absorbance is proportional to the concentration of surfactant protein D. A standard curve is constructed by plotting absorbance values against concentrations of standards, and concentrations of unknown samples are determined using this standard curve.

### **Summary of protocol**

- · Reconstitute QCs and Standards
- · Dilute Samples 11×
- $\cdot\,$  Add 100  $\mu I$  Standards, QCs and samples
- · Incubate at RT for 2 hours/300 rpm
- · Wash plate 5 times
- · Add 100 µl Biotin Labelled antibody
- · Incubate at RT for 1 hour/300 rpm
- · Wash plate 5 times
- · Add 100 µl Streptavidin-HRP Conjugate
- Incubate at RT for 1 hour/300 rpm
- Wash plate 5 times
- · Add 100 µl Substrate Solution
- $\cdot\,$  Incubate at RT for 15 min
- · Add 100 µl stop solution
- · Read absorbance and calculate results

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