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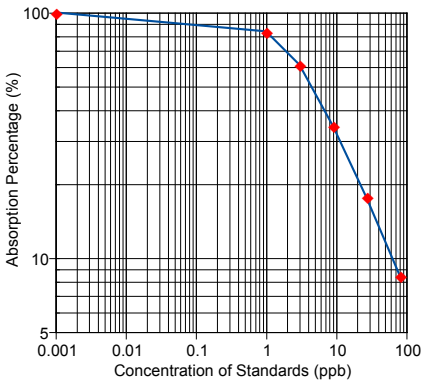
Quinolones ELISA Kit, Cat# DE-100120

Quinolones ELISA kit | Qualitative & Quantitative | **Stds** = 0-81 ppb | **Sample**= 50 ul; **80 min** assay | Sensitivity 1 ppb |



Quinolones ELISA Kit Features

- Pre-coated, stabilized, ready-to-use 96-well strip plate, suitable for multiple runs over 12 months.
- Convenient liquid Standards, containing pre-diluted standard 0-81 ppb.
- > 95% reactivity with Enrofloxacin, Ciprofloxacin, Ofloxacin, Oxolinic Acid, Danofloxacin, Norfloxacin, Pefloxacin, Enoxacin, Flumequine, Marbofloxacin, and Amifloxacin.
- Sensitivity 1 ppb; 50ul samples.
- 80 minute, 2 incubation steps at **25 ℃**.
- Easy procedure for sample preparation.

This kit is for measuring Quinolones in pork liver, chicken liver, shrimp, fish, serum and honey. For in vitro research use only.

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

Step 1. Pipet **50 ul of each standards** and samples containing Quinolone (diluted as required), **50 ul of enzyme conjugate** solution, and **50 ul of antibody working** solution in duplicates into the wells. Seal the plate, mix gently and incubate at **25 ℃ for 1 hr.**

Step 2. **Aspirate and wash** the plate five times.

Step 3. Add **50 ul of Substrate A** solution and then **50 ul of Substrate B** solution to all wells, mix gently, and incubate at **25 ℃** for **15 min in the dark** for coloration**.**

Step 4. Pipet **50 ul of stop solution** into each well and mix gently (blue color turns yellow). **Measure OD at A450 nm**. Calculate concentration of **Quinolone** in each sample using the Quinolone Standard curve.

General Information

Quinolones are a family of synthetic broad-spectrum antibiotics. It originates from the group called nalidixic acid. Most of quinolones used in clinical belongs to a subset of fluoroquinolones meaning that it has a fluorine atom attached to the central ring system, usually at the 6-position. Examples of fluoroquinolones include ciprofloxacin, ofloxacin, norfloxacin, momefloxacin and enoxacin, which worked better against gram-negative bacteria. Recent fluoroquinoloes such as levofloxacin, sparfloxacin, trovafloxacin, and grepafloxacin will work against on both gram-positive and gram-negative bacteria. Quinolone is derived from chloroquine, a synthetic chemotherapeutic agent that is used to treat serious, complicated and life threatening bacterial infections. Chloroquine was discovered by Hans Andersag in 1934 at Bayer I. G. Farbenindustrie A.G. laboratories in Eberfeld, Germany. Nalidixic acid was one of the first generation of quinolones and in 1962 it was discovered by George Lesher while performing chloroquine synthesis. It was a drug used for treatment of kidney infections in humans. Quinolones are chemotherapeutic bactericidal drugs which interfere with DNA replication. It inhibits the bacterial DNA gyrase or the topoisomerase IV enzyme, leading to inhibition of DNA replication and transcription. It will enter the cells through pores called porins, so it is often used to treat intracellular pathogens such as Legionella pneumophila and Mycoplasma pneumoniae. DNA gyrase is the target in gram-negative bacteria and topoisomerase IV is the target in gram-positive bacteria.

Side effects of fluoroquinolones are usually mild to moderate and self limiting. Serious side effects are rare but include central nervous system and tendon toxicity. Even thought fluoroquinolones usually has mild side effects there are people that are affected by it. Everyone has a different and unique threshold of tolerance for fluoroquinolones. The side effects can be long-term temporarily or last forever. Not only individuals treated with the drug are exposed with the antibiotic, it can also be transferred through the food chain to human. Individuals exposed to fluoroquinoloes can be diagnosed with fibromyalgia, multiple sclerosis, rheumatoid diseases, myositis, and heart problems.

Quilones resistance evolution can occur very rapidly, even during a course of treatment. Pathogens including Staphylococcus aureus, enterococci, and streptococcus pyogenes shows resistance to the drug. It is suggested the use of the drug only in patients with complicated cases that needs immediate hospitalization.

Alpha Diagnostic Intl's Quinolones ELISA kit is a highly sensitive competitive type assay for the measurement of Quinolones in pork liver, chicken liver, fish, shrimp, serum and honey.

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