

# IDEA™ STEC

## INNOVATIVE AND PATENTED AGAR

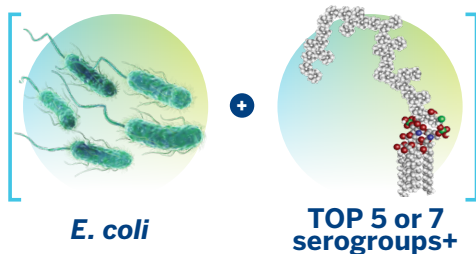
Shiga-toxin–producing *E. coli* (STEC) are among the most critical microbial hazards in the food industry and represent a major public health concern.

IDEA™ STEC is a patented and innovative culture media designed to simplify and enhance the confirmation step in the detection of *Escherichia coli* producing Shigatoxin (*stx* +), and enables selective isolation of typical EHEC strains (*stx* + / *eae* +).

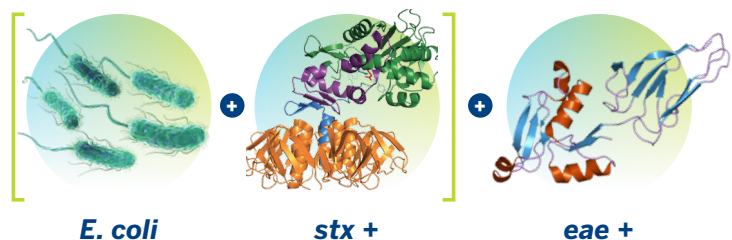
IDEA™ STEC boosts accuracy and helps ensure compliance with a next-generation isolation agar leveraging Shigatoxin immunocapture — enabling faster, clearer decisions.

## DEEPER PRECISION ON AGAR WITH NANOPARTICLES

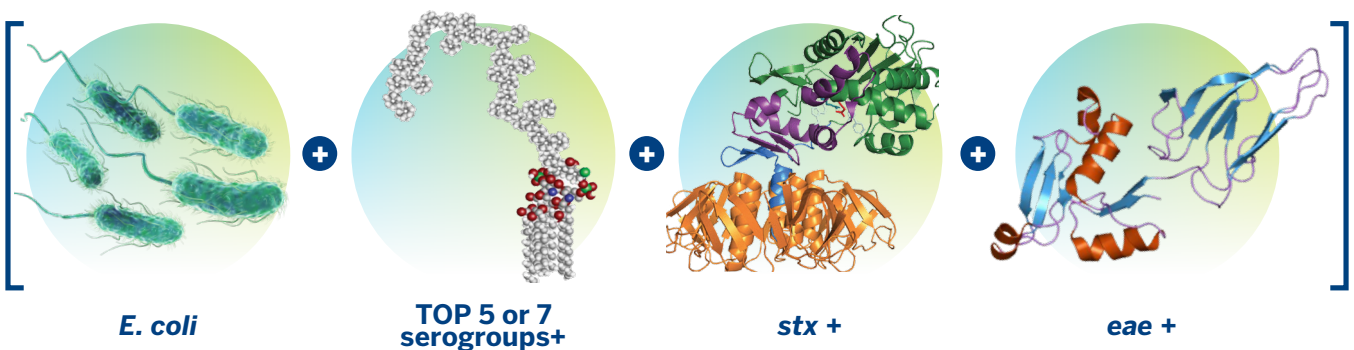
Today, for the confirmation step, and depending on the reference methods applied and the regulations in place, specific characteristics for *Escherichia coli* strains should be identified.



In general, culture media used for selective isolation are based on **colored** biochemical reactions



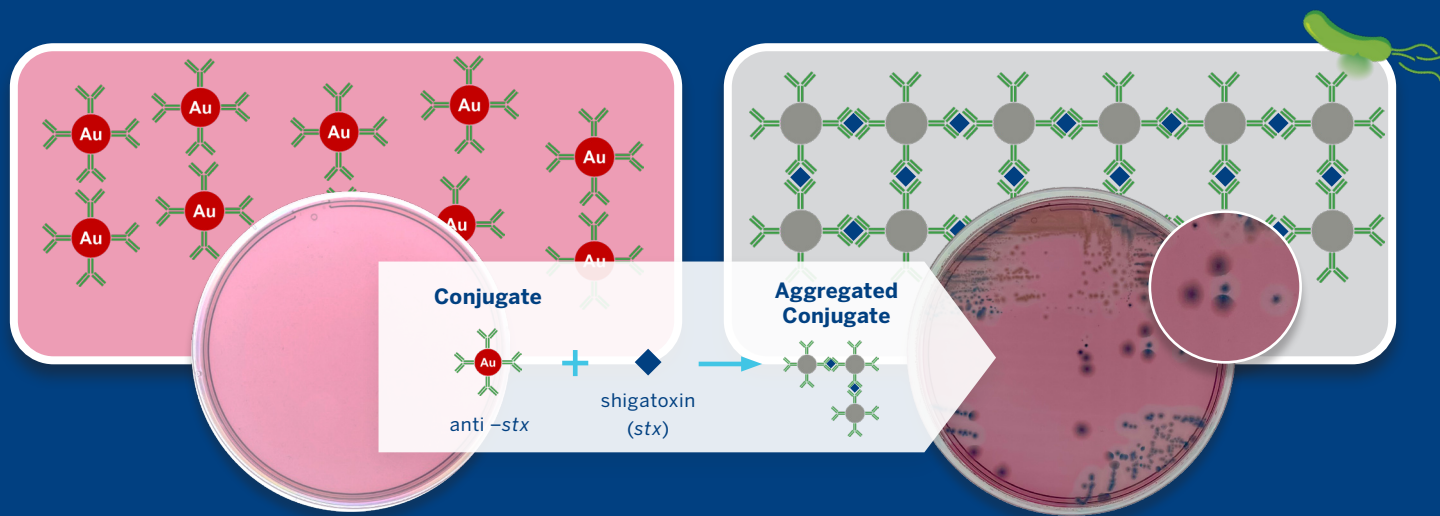
IDEA™ STEC allows you to start your search with a deeper precision, by directly targeting *stx* producing colonies **thanks to nanoparticles** and a higher sensitivity for *eae*-positive colonies **thanks to selective CT gradient**



This advanced medium allows the selective isolation of STEC strains (*stx*+) and, more specifically, typical EHEC strains (*stx*+/*eae*+), enhancing confirmation workflows by making colony identification simpler, highly reliable, and visually distinct.

# DEEP DIVE INTO THE IDEA™ STEC TECHNOLOGY

Culture media are foundational to microbiology and have evolved from basic formulations to selective and finally chromogenic classes of media. Recent innovations now combine culture media with functionalized noble metal nanoparticles—particularly gold—creating a new approach to culture-based diagnostics. By pairing established immunological technologies (such as antibodies, aptamers, or phage tail proteins) with these nanoparticles, this method enables targeted detection of specific biomolecules or proteins that conventional media cannot reveal.

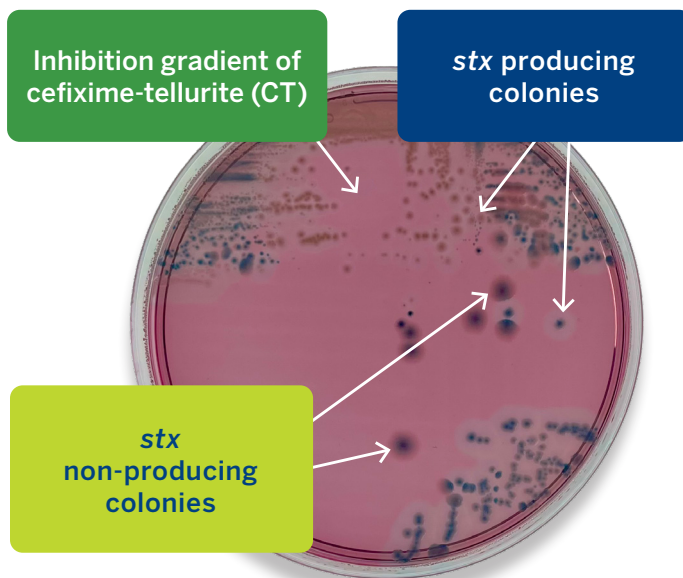


Noble metal nanoparticles have unique optical properties that allow target capture events to be visualized directly on agar plates. When specific binding occurs, nanoparticle aggregation causes a measurable change in light reflection, producing a visible halo around positive colonies. Multiplex detection is also possible by incorporating different nanoparticles.

This approach combines the specificity of immunological assays with the spatial resolution of colony isolation on Petri dishes. In foodborne pathogen detection—such as typical EHEC strains—it really helps improve confirmation workflows. IDEA™ STEC medium allows rapid identification of colonies producing Shiga toxin through halo formation, eliminating the need for random, numerous, or exhaustive colony picking and **PCR analysis**, enabling faster, more targeted confirmation and less money spent.

Presence of a discolored or gray halo for typical colonies with different phenotype (colony color and size, halo size)

Inhibition gradient of cefixime-tellurite (CT) allowing preferential growth of EHEC (depending on the matrices & competitive flora)



Because safety, speed, and accuracy should never be compromised, trust the power of IDEA™ STEC to elevate your EHEC/STEC strategy.

**Learn more on our website.**