

## Recombinant Protein Secretion in *Escherichia coli* using several leader peptides

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### Abstract

This work describes a novel method for the secretion of proteins in *Escherichia coli*.

The strategy is based on leader peptide of the oligosaccharide transferase of *Bacillus* sp.

Each leader peptide is composed of a 20-amino acid signal sequence of *Brevibacillus brevis* cyclodextrin glycosyltransferase (CGTase) and a 31-amino acid signal sequence of *Bacillus macerans* cyclodextrin glycosyltransferase (CFTase).

Several leader peptides have been used to study secretion of the green fluorescent protein (GFP), reporter protein to the culture medium. The strains of *E. coli* carrying GFP with the leader sequences of CGTase and with the leader sequence of CFTase efficiently secreted the reporter protein. The artificial leader sequences also allowed secretion of the recombinant proteins. Moreover, These data suggest that the general secretion pathway in *E. coli* and *Bacillus* sp. and operates in a sequence-non-specific manner.

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### References

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