

## PROTEIN EXPORT

#### Sec dependent pathway

Prokaryotic type I Trasnlocation channel and related proteins

SecY SecE SecG
SecD/F YajC

YidC

SecA SecB SecM

SRP

Ffh Ffs

SRP receptor

FtsY

Eukaryotic type

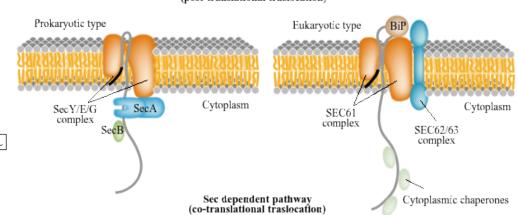
SEC61α SEC61β SEC61γ

BiP

SRP9 SRP72 SRP19 RN7SL SRP14 SRP68 SRP54

SRPR SRPRB

# Sec dependent pathway (post-translational traslocation)



## GET (guided entry of tail-anchored protein) pathway

Targeting factor

Pre-targeting complex

GET3

GETS BAG6 SGTA

Membrane receptor

GET1 GET2

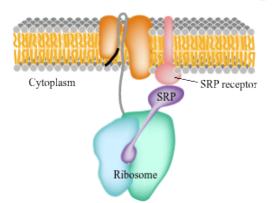


Targeting factor

SND1

Membrane receptor

SND2 SND3



### TAT (twin-arginine translocation) system

Prokaryotic type

TatA	TatB	TatC
TatE		

#### Signal peptidase

Prokaryotic type

Eukaryotic type

SPase I SPase II

SPCS1 SPCS2 SPCS3 SEC11

IMP1 IMP2

03060 1/5/24 (c) Kanehisa Laboratories