

Insect Expression Products EX-CELL™ Serum-Free Media for Insect Cells

EX-CELL™ 405

Serum-Free Medium for Insect Cells

Baculoviruses are powerful expression systems for production of recombinant proteins. The most well known and highly investigated baculovirus vector expression system (BEVS) uses *Spodoptera frugiperda* cells (especially Sf9) as the host cell of choice for infection with recombinant *Autographa californica* nuclear polyhedrosis virus for heterologous protein expression. Recent investigations have shown that other cell lines may be better expression substrates than spodopteran cells. The BTI-TN-5B1-4 clone of *Trichoplusia ni*, commonly referred to as High Five™, is reported to be a superior host substrate for the expression of selected recombinant proteins using BEVS. This cell line portrays strong adherent characteristics, but can be adapted to suspension growth.

EX-CELL™ 405 is a serum-free medium for optimal growth and viability of BTI-TN-5B1-4 (Tn5, High Five™) cells. In addition, EX-CELL™ 405 supports recombinant protein production in High Five™ cells to higher levels than reported for Sf9 cells. EX-CELL™ 405 is a complete medium. No protein supplements need to be added to this medium prior to use.

EX-CELL™ 420

Serum-Free Medium for Insect Cells

EX-CELL™ 420 is a complete medium developed and optimized for the serum-free growth of Sf9 and Sf21 insect cell lines. Cells can be subcultured directly into EX-CELL™ 420 from serum-free or serum-supplemented media without adaptation. Cultures in EX-CELL™ 420 routinely reach cell densities greater than 1 x 10⁷ cells/mL with greater than 95% viability. Suspension cultures can be maintained, without refeeding, for more than 10 days. Sf9 and Sf21 cells have been carried for more than 20 passages in EX-CELL™ 420 with no loss of viability. Protein expression and virus production are improved over serum-containing media.

Refer to product comparison chart inside this publication for more information about EX-CELL™ 405 and EX-CELL™ 420.

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Product comparison chart: EX-CELL™ 405 and EX-CELL™ 420

	EX-CELL™ 405			EX-CELL™ 420		
Catalog Number	14405	24405	14420	24420	14419	14421
Format	Liquid	Dry Powder	Liquid	Dry Powder	Liquid	Liquid
Standard Sizes	500 mL 1000 mL 10 L	1 L 5 L 10 L 50 L 100 L	500 mL 1000 mL 10 L	1 L 5 L 10 L 50 L 100 L	500 mL 1000 mL 10 L	500 mL 1000 mL
Applicable Systems	Adherent/Suspension			Adherent/Suspension		
Protein Level	None			None		
Hydrolysate Source	Yeast			Yeast		
L-glutamine	Yes, 4.717 g/L		Yes, 1.000 g/L		No, add 1.000 g/L	
HEPES	No			No		
Pluronic® F-68	0.1%			0.1%		
Glucose	9.434 g/L			6.00 g/L		
L-methionine	Yes			Yes		Deficient*
Sodium bicarbonate	Yes, 0.33 g/L	No, add 0.33 g/L	Yes, 0.35 g/L	No, add 0.35 g/L	Yes, 0.35 g/L	Yes, 0.35 g/L

*This product is formulated without the addition of L-methionine. However, the yeastolate used in the formulation can contribute low levels of L-methionine. Please contact Technical Services for specific information.

The formulations for all EX-CELL™ Serum-Free Media are proprietary to SAFB Biosciences. For more information about this subject or other SAFB Biosciences' products and services, please call our Technical Services department.