

KBM 501 (Medium for Activation of Human NK Cells)



Usage

This medium is optimized for activation of human peripheral blood natural killer cells.

Feature

- The medium is composed of injection solvent and many pharmaceutical grade high purity reagent.
- This medium does not contain proteins except for human serum albumin (pharmaceutical grade), human transferrin, recombinant human insulin, recombinant human interleukin-2 (2814 IU/mL).
- Capable of minimize the variation of pH by enhanced buffer capacity.
- Kanamycin sulfate is contained as antibiotic.
- The medium has good keeping quality.

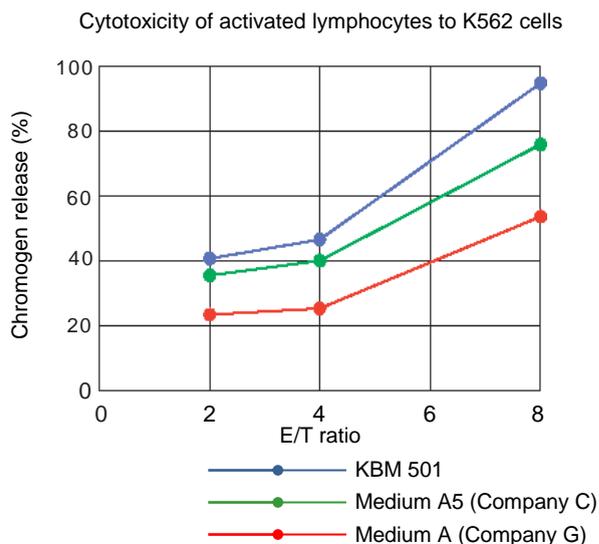
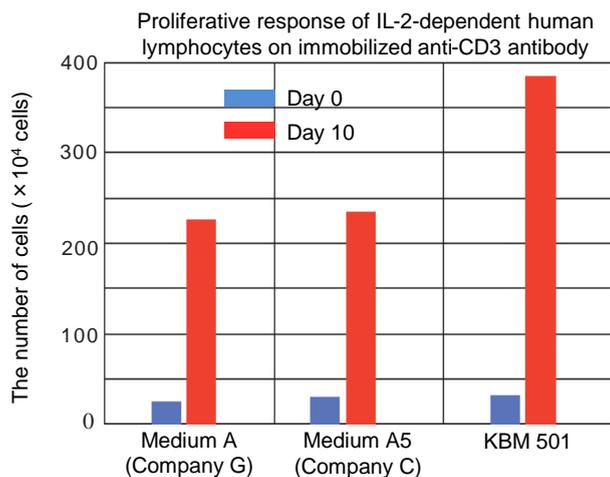
Usage Example

1. Add 5-10% autoserum or autoplasm at the onset of culture.
2. Expand the scale of culture depending on cell proliferation. In this point, it may be possible to omit the addition of autoserum or autoplasm.
3. Change the medium to KBM 502 that has lower interleukin-2 concentration (281 IU/mL).

Osmolality: 290 ± 15 mOsm/kg H₂O (determined by freezing point depression osmometry)
 pH: 7.2 ± 0.2 (determined using a glass electrode)
 Sterilization: Negative (Membrane filtration)
 Mycoplasma Test: Negative (PCR detection)
 Endotoxin Test: Less than 0.3 EU/mL (Determined by *Limulus* amoebocyte lysate assay)

Notice: This product is only for research use, and not for human or animal therapeutic use.

Cell Culture Examples



Performance evaluation of KBM 501:

Cell: Normal human peripheral blood monocytes

Vessel: 12-well plate on which anti-human-CD3 antibody is immobilized.

Cytokine: Recombinant human interleukin-2 (2814 IU/mL)

Plasma: 1% inactivated autoplasm was added at the onset of culture.

Proliferative test: The culture was started at a seeding density of 27×10^4 cells/mL, under static conditions at 37°C, 5% CO₂. The culture was diluted by adding each medium containing plasma upon cell proliferation. At day 10, cells unstained by trypan blue were counted.

Analysis: At day 10, surface markers of activated lymphocytes were analyzed by flow cytometry, and cytotoxicity to K562 cells were measured with TeraScan that is a microfluorocytometer developed for measuring cytotoxicity.

Surface markers of activated lymphocytes

Surface marker	Incidence (%)		
	KBM 501	Medium A	Medium A5
CD3 ⁻ CD56 ⁺	1.74	1.23	0.54
CD3 ⁺ CD56 ⁺	15.52	32.93	35.91
CD3 ⁻ CD56 ⁻	0.93	2.06	0.68
CD3 ⁺ CD56 ⁻	81.81	63.78	62.87

Code: 16025015
Product Name: KBM 501
Form: Liquid
Cytokine: Recombinant human interleukin-2 (2814 IU/mL)
Size: 500 mL
Storage: 2-8°C
Shelf Life: 8 months from production date