Los macrófagos peritoneales de ratón poseen un sistema de acilación específico para ácidos grasos poliinsaturados de veinte carbonos. Estudios con células intactas

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April 15, 1992

Se reconoce ampliamente que, además de regular la expresión y la actividad de las enzimas metabolizadoras del ácido araquidónico (AA), la disponibilidad de AA libre limita la biosíntesis de eicosanoides. El AA participa en un ciclo de desacilación/reacilación de los fosfolípidos de membrana en el que el ácido graso es escindido por fosfolipasas A_2 y reesterificado por aciltransferasas. Por lo tanto, el AA libre puede estar disponible ya sea por activación de la fosfolipasa A_2 o por inhibición de la reincorporación de ácidos grasos. Observamos que la exposición de macrófagos premarcados con [^{3}H]AA a concentraciones micromolares de AA no marcado resultó en una liberación neta de radioactividad al medio extracelular. Esto no fue consecuencia de la activación de la fosfolipasa A_2, sino de una reesterificación deficiente del [^{3}H]AA previamente liberado. Los precursores de eicosanoides, ácido eicosatrienoico (ETA) y ácido eicosapentaenoico (EPA), mostraron un efecto similar al del AA no marcado en la liberación de radiactividad de los macrófagos premarcados con [^{3}H]AA, pero todos los demás ácidos grasos evaluados fueron ineficaces. De manera similar, solo AA, ETA y EPA pudieron inhibir la captación de [^{3}H]AA por los macrófagos, siendo todos los demás ácidos grasos ineficaces. A partir de estos datos, se concluye que los macrófagos contienen un sistema de acilación específico para los precursores de eicosanoides AA, ETA y EPA. En conjunto, los resultados de este estudio subrayan la importancia de la reacilación de ácidos grasos para controlar los niveles de AA libre en los macrófagos.araquidónico.

Financiación: Fondo de Investigaciones Sanitarias de la Seguridad Social (FIS89/0202)

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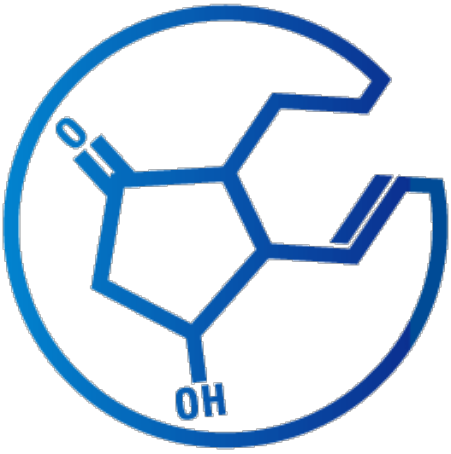

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