Collagen Induced Arthritis in DBA1 mice

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Arthritis Model

- Widely used as a model of rheumatoid arthritis induced through collagen injection
- The MPF™ DBA/1J BomTac has shown superior performance for collagen induced arthritis studies.

Data are from three independent experiments using Hooke Kits™ Chicken Collagen/CFA Emulsion (EK-0210) and Chicken Collagen/IFA Emulsion (EK-0211), with female Taconic mice.

- DBA/1 mice develop collagen induced arthritis (CIA) after immunization with collagen emulsified in Complete Freund’s Adjuvant (CFA), followed by a booster dose of collagen emulsified in Incomplete Freund's Adjuvant (IFA).
- Mean maximum arthritic score will be 12 to 14 (on the scale of 0–16).
- When using chicken collagen, CIA will develop 16–35 days after immunization in 90–100% of male and female mice.
- When using bovine collagen, CIA will develop 16–35 days after immunization in 90–100% of male and 60% to 100% of female mice.

Nomenclature:
DBA/1JBomTac
Client submitted Data – CIA development

- Received on Sept 20, 2011
- Order #: 292063
- DBA1BO-M
- DBA/ 1J BomTac Male
- Lot: 20110725-MBU000303C-HC
- Age: 8 Weeks
- Health Status: MPF
- Route Number: OT-900A-TU-5
- Quantity: 99
- Collagen induced arthritis: n=10

![Graph showing average paw thickness over days](image-url)
Figure 1. Body Weight Over Time (grams)

- Naïve (*d1-14)
- Vehicle Control (20% HPCD) PO, BID (12 hr)

Bolder BioPATH, Inc.
*p ≤ 0.05 student’s t-test to vehicle
n=8/Grp 2
n=5/Grp 1
Figure 2. Body Weight Change From Day 1 (grams)

- **Naïve (*d3-14)**
- **Vehicle Control (20% HPCD) PO, BID (12 hr)**

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n=8/Grp 2
n=5/Grp 1
Figure 4. Clinical Arthritis Score - All Paws
(Scored 0-5)

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n=8/Grp 2
n=5/Grp 1

Mean±SE Clinical Arthritis Score
(Scored 0-5)

Arthritis Day

Naïve (*d1-14)
Vehicle Control (20% HPCD) PO, BID (12 hr)
Figure 6. Summed Clinical Arthritis Score - Therapeutic Paws (Enrollment Paws) (Scored 0-5)

- Vehicle Control (20% HPCD) PO, BID (12 hr)

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n=8/Grp 2
n=5/Grp 1
Figure 8. Summed Clinical Arthritis Score - Prophylactic Paws (Non-Enrollment Paws) (Scored 0-5)

- **Naive (d2-14)**
- **Vehicle Control (20% HPCD) PO, BID (12 hr)**

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n=8/Grp 2
n=5/Grp 1